Clinical Lecture
ON A
CASE OF IMPACTED GALL-STONE, AND JAUNDICE CONTINUOUSLY FOR TWO YEARS AND A HALF.

Delivered at the London Hospital,

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IN many cases of jaundice the diagnosis is not difficult, and it may be confidently said that the morbid condition will most probably disappear in two or three weeks. Such is the case with so-called simple or catarrhal jaundice. In other cases the jaundice seems for a while catarrhal, but in the course of a few days or weeks symptoms set in which leave no doubt that the disease will prove fatal; whilst in some the jaundice continues for weeks or even months, and it is difficult to say what is the causal condition, and, not knowing the cause, it is impossible to indicate whether it will terminate in death or recovery. Easy, therefore, as it seems to be in many cases to make a diagnosis and prognosticate the end, in others it is unquestionably so difficult that the most experienced physicians cannot confidently come to any conclusion. And those, perhaps, who have seen most of clinical medicine are ready to admit that they have watched cases of jaundice for weeks or months, feeling confident that it was due to impacted gall-stone, and the post-mortem examination showed it was caused by a cancerous mass pressing on the common bile-duct, or *vice versâ*. And although attacks of "biliary colic," followed by very temporary jaundice, are so characteristic that there is little or no difficulty in such cases in diagnosing the cause of the jaundice, yet in other cases the passing of a gall-stone is attended by very few symptoms, certainly no severe attack of pain nor urgent vomiting to attract attention. The jaundice is perhaps the symptom which leads the patient to think he is not well, and requires medical attendance. And some of these obscure cases are sometimes very protracted, and consecutive complications arise which eventually kill. Such was the case with the patient I purpose now to bring under your notice. The particulars of his illness are very instructive; it will, therefore, be useful to give them rather fully.

The following particulars were given by the patient:—In his youth he was subject to epileptiform seizures; in his manhood he had no decided fits, but suffered much from giddiness. He seems to have had no symptom of hepatic disease till June, 1871; he then had severe irritation of the skin, and was advised to go into the country for change of air. He went to Yarmouth, and whilst there gradually became jaundiced; his urine became very dark, and his fæces of a light colour. He was, however, able to walk about as usual, but his appetite failed a good deal. He returned from Yarmouth and went to his work, but jaundice still continued; he had no pain, but he had "cold shivers," his teeth chattered, and he was in consequence obliged to leave his work, go home, and sit before the fire, even in the middle of summer; he had sometimes two of these attacks in a week. A few months after the commencement of these attacks he went to King's College Hospital, and attended there for four or five months, but his symptoms continued. During this time he continued his work, and except at the time of the rigors he never lay up in bed, and he most positively said the jaundice continued without a day's intermission about two years and a half. It is very rare to find jaundice continuing so long; we were therefore led to question the accuracy of his statement. We inquired of Dr. Davey, of Old Ford, who attended the patient at the time he had the jaundice, and had known him for years; he assured us he could testify to the truth of the patient's statement, and there was no doubt that he had jaundice for the time named, two and a half years. After this the jaundice subsided, but he did not feel well; how far, however, his suffering was dependent on hepatic disease, or to what extent on his epileptic state, was not clear. In May, 1874, he was attacked with severe pain in his abdomen and left side; this came on gradually, but it was continuous, and he was obliged, in consequence, to remain in bed a fortnight. He again became jaundiced, and as soon as he was able to get about he came to the London Hospital. He was seen by Dr. Stephen Mackenzie, and whilst under his treatment the jaundice a second time disappeared. After the last-named seizure, he quite recovered, and was well until five weeks before he was admitted into the hospital. His last and fatal seizure also set in with severe pain, as he said, at the pit of his stomach; it was very intense, and extended into the region of the liver also. The pain continued, but he was able to keep about for a while. He did not vomit, but he felt sick, and endeavoured to excite vomiting by tickling his fauces. The pain increased, and he took chlorodyne, which relieved him. One day, whilst going home, he was attacked by shivering, which lasted an hour; he then lost his senses and became delirious. It would seem that after the rigor he had one of his accustomed epileptiform seizures. He was at this time attended by Dr. Davey, and subsequently sent to the London Hospital.

He attended at the out-patients' department on Jan. 11th. He was then jaundiced, and stated, as already mentioned, that the attacks set in with pain, without vomiting, and four days after the commencement of the pain, and not till then, he a third time became jaundiced. On examining his abdomen, a mass was felt coming down from under the right ribs, occupying the right half of the epigastrium.

He was admitted into the hospital, and he was then noticed to be much jaundiced. He had no pain, no vomiting; but he said he had lost much flesh—nearly three stone. In the night of the day of admission he had a rigor, which lasted about twenty minutes; he perspired a good deal after it, and during the reaction he was delirious. Next day, the left lobe of the liver was felt distinctly, extending about two inches below the left ribs; its surface seemed smooth, its edge was appreciable but not sharply defined, and it descended during inspiration. Stretching across the epigastrium a smooth solid mass was felt; it seemed to extend up under the right ribs, and its edge was felt about three inches below the ribs; it descended markedly during inspiration. On percussion, the liver dulness appeared to reach as high as the third right costal interspace, and behind as high as the angle of the left scapula; on taking a deep breath this liver dulness was lowered, clearly indicating that there was no pleuritic effusion. Below the edge of the right lobe of liver there was an ill-defined soft substance, and it was thought that this might be the gall-bladder. His urine was deeply bile-stained, but contained no albumen.

A week after admission the patient complained of nausea; he had no severe pain, but a gnawing sensation in his abdomen; his fæces seemed to contain some bile, they were not very white. He had not had any return of the rigor. But on Jan. 20th the jaundice and enlargement of the liver persisted, and he was this day again seized with a rigor; he complained of pain in his abdomen, which was tympanitic. His temperature was normal before the rigor, afterwards it was 103°. On the 22nd he had another and severe rigor. On the 24th the mass in the region of the liver was carefully examined: its surface was smooth and firm; in no part of it could any soft elastic substance be felt to indicate suppuration. It was particularly noticed during this examination that even firm pressure did not cause pain, and even free movement of the abdomen did not distress him, which seemed to indicate there was no peri-hepatic peritonitis. The jaundice continued much the same, but his expression had altered considerably, and he had evidently lost a good deal of flesh. It was then found that his temperature every night rose to 101°, 102°, or 103°, even when he had no rigor. His tongue was parched and brown, his pulse quick; and although his temperature in a morning fell sometimes to 99°, the nightly exacerbation showed clearly that some acute change was going on. The absence of pain and tenderness in the region of the liver seemed to be evidence there was no acute inflammatory change in this part. Physical signs showed no acute change in lungs or heart, there were no signs of intracranial inflammatory action, nor of nephritis or other local change, giving rise to this pyrexia and other great constitutional disturbance; it was therefore inferred

by a process of exclusion that there was some suppurative inflammation probably in or about the liver, although, as already said, the absence of pain and tenderness seemed somewhat opposed to that opinion. It was suggested that the rigors might be due to malaria, but the nightly rise of temperature seemed to negative that view. He remained in much the same state during the next two days, but on the 26th again had a rigor. His urine all this time was deeply bile-stained; his fæces were examined, and, although light in colour, they were not very pale like bileless evacuations. On the 29th he was suddenly seized with a peculiar sensation in his stomach, and he brought up about six ounces of coagulated blood; next day he had a great deal of pain in the epigastrium, and he retched; his tongue was very dry and brown. On the 31st he again had a shivering fit; he became very prostrate, and died.

The autopsy was conducted by Dr. Sutton. Whilst the body was lying on the table, and before the abdominal wall was cut into, a mass was felt about four inches below the sternum; its surface was smooth, and its edge rounded off; but it was noticed that whilst tracing the edge towards the right, it curved upwards, and ascended an inch or two. Passing from this indentation still further towards the right, the edge of the liver was very distinctly felt. The abdominal veins were not enlarged. On opening the abdomen, very little serum escaped; the peritoneum was healthy. The liver was seen much enlarged, extending three or four inches below the ribs, and it filled the epigastric region; its left lobe was also much enlarged. The spleen was lying back towards the left kidney, and its edge was an inch or two below the ribs. The depression above named was caused by the lower margin of the right lobe being indented and puckered, forming a notch, to which was adherent a portion of the omentum. This indentation was about midway between the median line and the lateral boundary of the abdomen. The stomach was lying immediately under the liver, and was distended. On separating the adhesions attached to the notch just named, cutting through the lesser omentum, then drawing down the transverse colon, and lifting up the stomach, some pus was seen escaping. The duodenum was next opened; it contained bile; and, whilst searching for the orifice of the common bile-duct, a large canal was found opening into the duodenum. This canal contained a quantity of pus, and had a distinct lining membrane; it was traced up into the substance of the liver, and communicated with the duodenum by an orifice which admitted a good-sized catheter. Above it was much wider. In this canal, about an inch from the duodenal end, a large gall-stone was seen, of a greyish-yellow colour, embedded in a cavity. It was lying across the canal. The cavity in which the stone was embedded was evidently not of recent origin; its wall was smooth, and its edges rounded off. The gall-bladder was searched for with great care, but could not be found. Whilst doing this it was observed that there seemed to be another gall-stone projecting into this cavity, and extending across into the substance of the liver. On removing what seemed to be the second stone, a duct was seen above the large canal already named. On passing a probe down this duct and cutting it open, it was found that it ended by a small orifice in the duodenum, and it continued upwards into the canal, but above the gall-stone. This duct, which was lined by mucous membrane, bile-stained, was the lowest portion of the ductus communis choledochus. It contained a few small, dark, seemingly recently formed gall-stones at its duodenal end. It was then seen that not only did this large gall-stone, which had probably been broken into two, occupy the cavity above mentioned, and extend across the canal, but it projected into the common duct, and it seemed that the cavity and a portion of the canal were formed by altered gall-bladder. It appeared most probable that there had been a large stone in the gall-bladder, which had set up ulceration in its lining membrane; the lower portion of the bladder had then become adherent to the common bile-duct, and the gall-stone had penetrated from the gall-bladder into the common duct. The walls of the cavity and large canal were covered with pus, and the bile-ducts in the liver above the impacted gall-stone were much dilated and coated with pus. It further seemed that the summit of the gall-bladder had become adherent to the duodenum also, and a communication established between them, forming the large orifice already mentioned, opening into the duodenum. The liver was found studded with abscesses, which were evidently recent, for their walls were soft, and they had only a soft, thin lining membrane. Some of the abscesses were about the size of a walnut, others much smaller, and the dilated, pigmented, pus-coated bile-ducts were traced opening into some of these abscesses. The liver-substance generally was much softened. The remainder of the body presented no change which need now occupy our attention.

Judging from the smooth lining membrane, and the distinct fibrous tissue around the cavity, it seemed that the stone had been impacted for a considerable time. As already stated, it projected into the ductus communis choledochus, but did not completely close its canal; there was room for bile to pass by the stone down the common duct. The lining membrane of the duct was found bile-stained, and there was bile in the duodenum, and seemingly in the fæces, all showing that bile was able to escape to some extent from the liver. Considering the appearance of the abscesses, the suppurative inflammation would seem to have set in during the last few weeks of life; the ducts above the gall-stone had probably been slowly dilated by the pressure of the accumulating bile, but for a while sufficient bile escaped to prevent jaundice. It would seem, however, that the suppurative inflammation increased, and extended up the ducts into the substance of the liver, and the escape of bile was still further obstructed by the accumulation of pus. The liver then became enlarged, the retained bile absorbed; hence the second attack of jaundice which set in, as we stated, five weeks before the patient's admission into the hospital. And the symptoms would seem to show that the suppurative inflammation began at the time he was seized with severe pain in the epigastrium and right hypochondrium, for his severe rigors, which continued up to death, followed shortly on that severe pain; and that the suppurative inflammation was set up by the gall-stone was shown by the fact that the puriform change existed in greatest abundance from the gall-stone into the substance of the liver. During life, whilst considering the probable cause of his primary attack of jaundice, we could not help but point out that the patient seemed to have had no symptoms of "biliary colic," nor severe pain, nor vomiting at the onset of the jaundice, which seemed to indicate that the long-continued jaundice was not caused by a stone which had descended and become arrested and impacted in the common bile-duct. If our inferences from the post-mortem appearances be correct, it is not difficult to explain why he had no "biliary colic," for the reason that no stone passed down the duct, but, as already said, it made its way from the gall-bladder direct into the common duct.

CASE OF FRACTURE OF SPINE, WITH CONSIDERABLE DISPLACEMENT; LIMITED RECOVERY.

WITH REMARKS.

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(*From Notes by* Mr. CARTER, *House-Surgeon.*)

J. A——, aged twenty-three, a bricklayer, fell on his back from a tree, a height of about fifteen feet it was said, at 8 A.M. on May 30th, 1875. He was taken at once to the Great Northern Hospital. He had sustained a fracture of the spinal column at the site of the eighth dorsal vertebra, with considerable overlapping backwards of the upper fragment. He was stunned at the time of the injury, but was recovering consciousness when he reached the hospital. There were complete loss of sensation and motion in the lower limbs, and in the trunk below a well-defined line, which extended around the body, with slight lateral curves downwards, from a point a little above the umbilicus; paralysis of bladder and rectum, slight priapism, urgent dyspnœa, with almost entire suspension of costal movements, difficult articulation, and ptosis. The pupils were contracted, but not insensible. Pulse 90; and temperature in axilla

100° F., in rectum 99·8°. Was sick about three hours after admission. He suffered intense pain, extending from the line just indicated, upwards for some short distance over the lower ribs, with a sense of abdominal constriction. At 3 P.M. the pulse had risen to 116.

The cord had evidently sustained a severe and probably permanent injury; indeed, the aspect of the case was at this time such as to forbid any expectation that life would be prolonged beyond a very few days. He was placed on an unyielding couch, and as much weight as he could bear with comfort was appended to the trunk by means of well-padded straps around the loins. His urine was drawn.

His first night was very restless, with delirium and occasional efforts to be violent. With morning he became more tranquil, and his breathing less difficult. The pain around the lower part of the chest and, as he called it, "in his stomach," was still so severe that, fomentations and opium having failed to relieve it, large and repeated doses of chloral were given him.

June 1st.—A more quiet night. Pulse 120; temperature at feet and axilla, 101°; skin hot and dry.

3rd.—Is fairly quiet, but still more or less under the influence of chloral. Temperature continues to rise, and at 10 P.M. was, in axilla, 102·2°; at soles of feet, 103°. Ptosis had passed away.

7th.—Has begun to get rest without chloral. Pulse has fallen to 85, and temperature everywhere by one degree. Tongue furred; no action of bowels; signs of bedsores. Placed on a water-bed, a padded splint being applied to the spinal column.

8th.—Two enemata, and a third by a long tube, were returned without force or fæcal matter. Temperature reduced by another degree; pulse 92. Tongue still coated; abdomen flaccid; some appetite for solid food. Slept without chloral last night.

9th.—Urine has been regularly drawn. Temperature, in axilla, 98·4°; rectum, 100·2°; right foot, 99°; left foot, 98·4°. Bowels have acted three times unconsciously within the last thirty-six hours.

By the 15th his more distressing symptoms had much subsided; and he had become cheerful. The extension had given him much comfort, and apparently had somewhat reduced the spinal irregularity; but it had to be given up, as signs of ulceration were beginning to show themselves in the palsied tissues, beneath the straps. Still it had probably accomplished all that could be expected from it. The urine had become ammoniacal, and the bladder was consequently washed out with a solution of Condy's fluid. The voltaic current was to-day applied to the limbs; but although without direct result, some sensation, as that of burning, was felt in the soles of his feet on its suspension, which lasted three or four hours.

On the morning of the 17th, after a fairly good night, he complained of pain in the shoulder-joint. Pyæmia was feared, but the pain yielded to hot applications. The use of the battery was to-day followed by the "burning sensations," which had extended to his toes, and which, as before, lasted three or four hours.

19th.—The pain in the shoulder has spread to the region of the cervical spine, and he has had some shivering, with headache, furred tongue, and pyrexia. Pulse 104; some lancinating pains in the legs.

24th.—The feverish symptoms have subsided, and to-day he has a sense as of "pins and needles" in his legs, as well as of passing his urine along the front portion of his urethra during micturition.

On the 25th, mucus and phosphates appeared in the urine; bladder washed out twice daily with a solution of sulphurous acid (1 to 16).

27th.—After the battery to-day he said he "felt as if he had legs again."

28th.—The urethra just sensibly gripped the catheter on withdrawing it, and the bladder admits a smaller quantity of injection and returns it with some slight evidence of muscular contraction. Urine improved.

29th.—Had a rigor last night, which lasted half an hour. Temperature, after fits, in axilla 103·5°; pulse 112. Another, on the 30th, with lividity of face and dry skin, which lasted three hours, and was followed by profuse perspiration. Temperature during fit 99·5°; afterwards, in axilla, 103·2°; in rectum 104·5°, and at soles of feet 101°.

July 1st.—Frequent shiverings, especially on exposure. A large bulla formed along the right tendo Achillis, and some œdema on the dorsal aspect of left foot. He also spat a small quantity of blood. Urine: specific gravity 1015. The injection has been suspended for forty-eight hours, with the effect of the urine becoming more alkaline and turbid, and less power of retention.

4th.—Much improved. The shiverings have passed off; legs painful. The battery gave him pain along the course of the sciatic nerve. His bladder has gradually become incontinent.

On the 10th, another exacerbation took place. He had severe rigor, and his urine became more turbid; was very restless, and complained of throbbing pain in the seat of fracture. Pulse and temperature again rose.

By the 16th these symptoms had again subsided.

17th.—The battery produces burning pains in his toes, but has no effect whatever on his muscles.

21st.—Urine again clear and slightly acid. For the last two days has had *partial* priapism, to-day it is *complete*; signs of returning sensation in different parts. The applications to his bedsores are distinctly felt, and the tinglings have extended to his feet.

28th.—Began to have some control over his bladder; still the urine in great measure runs away.

August 3rd.—Another severe rigor, but without any untoward sequences.

9th.—Is much recovered in health, and begins to sit up.

15th.—Muscles of the legs, especially of the left, responded slightly to the voltaic current; particularly the peronei, the extensors of the great toe, and the soleï. This result continued daily, but with varying results both as to the sets of muscles affected and the amount of contractile force.

27th.—Rigors have occurred from time to time since last date, with about the same local variation of temperature as on their former occurrence, but everywhere about a degree lower. The sores, which have been healing, look angry, and have bled spontaneously on several occasions. Some pyrexia has set in, with headache and pains in the back and neck; pulse 110. A sore has appeared on the right knee. The urine has again become alkaline and ropy, and his bladder incontinent.

He had partially recovered from this relapse, when, on the 21st, 23rd, and 28th September, he had recurrence of rigors, succeeded, on the 29th, by another exacerbation of four days, followed by another and partial recovery. On the 24th October he had a still more severe return of the rigors and pyrexia; the pulse rose to 130, the temperature to 103·5°; the pain in the back recurred and extended to his shoulder-joint, aggravated by difficult and chiefly costal breathing; the battery ceased to occasion pains in the legs; and he had involuntary and painful stiffening of the fourth and fifth digits of the right hand. By the 29th these symptoms had again passed away with an attack of diarrhœa, of which he was conscious, and a return of sensation and muscular reaction to voltaic current in the thighs and legs; temperature reduced to 99·8°.

From this date the patient gradually mended, and on the 18th November his condition was nearly as follows:—Perfect union, at all events fixation, has taken place of the column at the seat of fracture, with overlapping to the extent of from a third to half an inch. The patient gets up, and has considerable mobility of his trunk. The line of demarcation between the palsied and healthy portions still exists. He has occasional twitching and tingling sensations in the limbs and palsied portion of trunk, always increased by passing the hand briskly over them or over the lower ribs. He has not, however, the slightest voluntary power over them, and but very little over the bladder and rectum. He moves about the ward by means of crutches or the articles of furniture, dragging his limbs after him. He can turn over when in a recumbent position, but only by a violent jerk of the healthy muscles of the trunk. When lying his limbs gravitate according to the movements of the trunk. His urine is clear and slightly acid. The battery gives uneasiness and slight muscular twitchings whenever applied. He looks remarkably well, is cheerful, and well nourished, and he has the full use of his mental faculties, organs of special sense, and all parts supplied with nerves above the seat of fracture. He left the hospital at the end of November.

This is only an uncommon case inasmuch as perhaps it is

one of recovery (as far as these cases ordinarily recover) after a severe fracture at a part of the cord bordering on especially dangerous regions, and with an unusual amount of permanent displacement, involving, of course, grave cordal lesion. Mr. Hutchinson has recorded several similar cases of great interest in the London Hospital Reports, to which I can now only make a passing reference.

The first question that suggests itself is this:—Should efforts have been made to reduce the fracture at the time of its occurrence? The dyspnœa, with total paralysis of the abdominal and lower intercostal muscles, and the general condition of the patient, rendered anæsthesia questionably safe, whilst his intense agony seemed to forbid any treatment which must have intensified it. At the same time the overlapping of the fragments and the nature of the symptoms rendered it pretty clear that the cord and its membranes, had suffered a considerable amount of physical injury.

Had the patient's general condition justified the expectation of ultimate survival, an attempt at reduction might have been seriously entertained, but the suggestion would have been met with a grave and reasonable doubt whether any effort in that direction would have even partially succeeded; and even if it had, whether the man's condition would have been in any respect the better for it.

There had been laceration of the cord and its envelopes to an appreciable extent, with persistent pressure, and had this been withdrawn it is questionable whether, on the one hand, the force necessary to bring the fragments into even approximate apposition would not have aggravated the lesion, and on the other, whether, supposing it could have been accomplished, and even without such additional complication, it would have lessened the gravity of the symptoms. Clearly, if with fracture and dislocation compression is alone indicated—and I am not sure that the diagnosis cannot be satisfactorily established—reduction should, if possible, be effected. I would remark, in passing, that this case, like another of spinal injury which I have recorded (see THE LANCET of Jan. 8th) is a protest against adopting those hystero-emotional complaints of a purely subjective character, which so often succeed "shakes" in railway collisions, as the legitimate results as well as proofs of nerve injury. They may *possibly* follow, but after *real* cord-lesions their occurrence is, I believe, very exceptional; and they can neither mask nor supplant that sure and unerring testimony to such injury, both as regards its nature and seat, which its objective features, in the way of certain disturbances of nerve-function, must inevitably supply. They are usually contemporaneous in their origin with that stage of convalescence after a slight injury when the patient ought to "put his shoulder to the wheel," and, in spite of some natural sense of infirmity, turn gradually to his ordinary duties. If he does not, he becomes *un malade imaginaire* and "defendants" are victims. Such anomalous symptoms are said to have followed a slight railway disaster in some hundreds of cases which I have recently seen, but are not met with after other injuries. Mr. Erichsen says: "During a hospital practice of thirty years I can scarcely recall to mind a single case in which this state"—the emotional or hysterical—"has been met with after, or in consequence of, any of the ordinary accidents of civil life."*

It is interesting to observe and mark the progressive and distinct phases in the symptoms of nerve injury in the case, and see how closely they observe the ascertained laws which rule the cerebro-spinal functions.

But in order to their just appreciation, they must, I submit, be studied under three distinct classes, as I have before remarked,—namely, those of—1st, shock; 2nd, injury; 3rd, repair; and, although anomalous, I hold it to be no less true that the danger attending the processes of repair is always greater than that which is sustained by the injury. By "shock" I mean both that general and those especial functional disturbances which occur simultaneously with the receipt of the injury, and are due to some actual but transient disturbance of the nerve system, in contradistinction to those which are associated with the local and more severe lesions. It is well known that if the cranial contents of a frog, short of the pons, be suddenly destroyed, to all outward appearance the animal is dead; but it is not dead, and the indications of life gradually show themselves in the restoration of all those functions that are connected with the spinal system. The shock *per se*, most intense on the infliction of the injury, uniformly lessens in intensity until it has entirely passed away.

In the present instance the unconsciousness, ptosis, pain, dyspnœa, priapism constituted the indications of shock as well from transient disturbance of certain portions of the brain as of the cord. All these, intense at first, gradually cleared off, leaving those in relief which belonged especially to the physical injury done to the cord and its membranes—those of the second class. Although some (a very slight portion) of these were likewise transient, they were only so through the aptitude on the part of some of the injured tissues for repair.

I come now to those belonging to the third class—those attendant on the processes of repair. These will declare themselves, and, unlike the former, will intensify in proportion to the extent and kind of mischief to be repaired. These consisted in simple and pure paralysis of all parts supplied or associated with nerves below the seat of injury.

On the fourth day after the accident the temperature rose; on the seventh there were signs of bedsores, and on the fifteenth urinary complications. To these succeeded signs of the advent of those processes of repair which issued eventually in recovery, with some, but very slight, restitution of the nerve-power which was presumed to have been lost. The repair included, of course, that of the physical injury done to the neural, membranous, ligamentous, and osseous textures, and occupied a period equivalent to that for the repair of not merely an ordinary but an unreduced fracture—taking this as the longest process,—and was accompanied by all the phases of disturbed nerve function and constitutional powers contingent upon the separate local changes in the several textures which were essential to that result. The clinical history comprehended that of every restorative unit and step in the general sum of the entire process.

At first all connexion between the portions of cord above and below the seat of fracture seemed to have ceased, but after-events showed that this was not entirely the case.

Then the exacerbations which occurred from time to time—viz., on the 17th and 29th of June, on the 10th of July, on the 3rd and 27th of August, on the 21st September, and, finally, on the 24th of October—with rigors, temporary exaltation of heat, and an ebb in the tide towards recovery of varying severity, showed distinctly local changes of an inflammatory and perhaps suppurative nature, which were restorative—although really more threatening, as far as life was concerned, than those which attended the infliction of the injury,—for they culminated in, as they tended towards, that result.

Looking at these injuries by this light, it becomes obvious that of the three stages, the third, or that of repair, demands very close consideration in a therapeutical point of view.

A physical injury has been sustained by an important organ, an organ in which any or the slightest organic change in its histological elements, by whatever process, is attended with the gravest impairment of its functions, as well as of others necessary to life. In the treatment, then, the object to be kept in view is repair of the injured textures with the least amount of adventitious material. All action that is superfluous or not actually wanted for that result, as tending to permanent thickening, interstitial effusion, softening, and so forth, should be anxiously looked for, and, if possible, counteracted. To this end local exaggerated action of an inflammatory kind should be subdued, the functions of excretion and assimilation should be kept as far as possible in a state of perfectly healthy exercise, and rest of mind and body, with every other favouring influence, should be most carefully brought into curative co-operation.

* Concussion of Spine.

BEQUESTS, &c., TO MEDICAL CHARITIES.—Miss Eliza Alice Cort bequeathed £2000 each to the Royal Infirmary, the Northern Hospital, and the Southern Hospital, £200 to the Lying-in Hospital, £100 to the Infirmary for Children, £100 to the Eye and Ear Infirmary, £100 to the Institute for Infectious Diseases, and £100 to the Medical Missionary Society, all at Liverpool; and £2000 to the Royal Albert Asylum for Idiots, Lancaster. Messrs. J. Musgrave and Sons have offered £5000 towards the erection of the proposed new infirmary at Bolton.

THE TREATMENT OF ACUTE RHEUMATISM BY SALICIN.

BY T. MACLAGAN, M.D.

(*Concluded from p. 343.*)

CASE 4. *Acute rheumatism.*—J. G——, aged twenty-six. On Feb. 8th was ailing, and at night was seized with severe pain in the back and limbs, accompanied by fever and tenderness of painful parts.

Feb. 9th.—Skin hot and covered with acid perspiration; tongue furred; bowels moved; has great pain in lumbar region, in knees, in calves of legs, and in elbow and wrist joints, all which parts are tender on pressure; no headache; pulse 104; temperature 102·5°. To have fifteen grains of salicin every two hours.

10th.—Had a better night; pain much less; feels that the powders do him good; tongue cleaner; profuse acid perspiration; bowels moved; pulse 100; temperature 99·5°.

11th.—Passed a good night; is almost free from pain; still perspiring freely; pulse 70; temperature 98·3°.

Remained well, except for aching in knees for a few days.

CASE 5. *Subacute rheumatism.*—Jane S——, aged twenty-three. For the last three weeks has had rheumatic pains, for which she has been taking nitrate of potass with some benefit.

Nov. 30th.—Five days ago she had shivering and much increase of pain. Face flushed; skin warm, not perspiring; pulse 108; temperature 100·8°; heart normal; tongue furred in centre; the joints of wrists and fingers are swollen and tender on both hands; knees painful and tender to touch, but not swollen. To have half an ounce of castor oil, and twenty grains of salicin every four hours.

Dec. 1st.—No salicin to be had from chemist; has therefore had none. Bowels acted; passed a restless night; had a good deal of pain; wrists and fingers still much swollen; pulse 92; temperature 100°.

2nd.—Commenced the salicin yesterday evening; had rather a restless night; general state much the same; pulse 96; temperature 100·3°.

3rd.—Passed a much better night; pains gone from wrists and knees, but has a little pain in left shoulder, which is tender to the touch; fingers and wrists can now be freely moved without pain; pulse 76; temperature 98·6°.

Progressed favourably.

CASE 6. *Subacute rheumatism.*—William M——, aged thirty, has twice had rheumatic fever. Is of nervous temperament.

Dec. 28th.—For the last two or three days he has felt generally out of sorts, and has had pain in left knee, which has also been swollen. Slept badly last night, and to-day feels general sense of discomfort; has pain in left knee, in both ankles, and to some extent in shoulders; the right ankle and left knee are swollen and tender to the touch; skin natural; tongue slightly furred; pulse 84; temperature 99·5°; bowels moved by medicine. To have thirty grains of salicin every four hours.

29th.—Restless night; to-day he feels very wretched, especially as he cannot move; both ankles swollen and tender; knees less so; pulse 88; temperature 100·5°; bowels confined. To have half an ounce of castor oil; continue salicin.

30th.—Did not sleep well, but thinks he feels better; complains chiefly of inability to move his legs; joints unchanged in appearance, but evidently causing less pain; skin covered with acid perspiration; pulse 96; temperature 100·5°; bowels moved.

31st.—Had decidedly less pain during the night, but did not sleep much; to-day feels weaker, but is not in pain, and looks more cheerful; swelling almost gone from joints, which can now be handled without pain; can move right leg pretty freely; has pain in left arm, between shoulder and elbow, but not affecting either joint; pulse 92; temperature 101·1°. Continue salicin.

Jan. 1st.—Quiet night; pain and swelling gone from joints; has aching in muscles about shoulders; feels much better, and has desire for food; has much acid perspiration, of which he complains more than he does of pain; tongue cleaner; pulse 84; temperature 101·4°.

2nd.—Feels better; still muscular pain in left arm, but nowhere else; pulse 84; temperature 100·1°; takes food with relish. Continue salacin.

3rd.—Good night; no pain; pulse 76; temperature 99·8°.

4th.—Quiet night; free from pain; pulse 60; temp. 99°.

5th.—Ditto, ditto; pulse 56; temp. 98·2°.

Remained well.

CASE 7.—James R——, aged forty-four. Has had rheumatic fever three or four times, lasting on each occasion from three to six weeks. Two days ago felt that his old enemy was returning.

Dec. 31st.—Has anxious expression; skin perspiring freely, acid reaction; tongue moist and furred; both knees painful, but not swollen; right wrist and fingers of both hands swollen and tender; has a soft (probably old) systolic murmur at apex; pulse 96; temperature 99°; bowels open. To have fifteen grains of salicin every three hours.

Jan. 1st.—Bad night; great pain in wrists; knees not so bad; profuse acid perspiration; pulse 96; temperature 99·9°.

2nd.—Better night; bowels moved; tongue rather cleaner; complains only of left wrist; pulse 92; temperature 99°. Continue salicin.

3rd.—Good night; no pain, only stiffness in affected joints, which are still somewhat swollen; pulse 92; temp. 98·8°.

4th.—Pain all gone; skin natural; cardiac murmur unchanged; pulse 88; temperature 98·5°.

Improvement continued. Said that nothing ever did him so much good as the powders, and that he never got over an attack so quickly.

CASE 8. *Chronic rheumatism.*—Alexander L——, aged forty-five, married, was, four years ago, confined to the house for four months with rheumatism. Two years ago he was laid up in the same way for six weeks. On neither occasion were the joints affected, the pain being seated in the muscles and bones. Three weeks ago his old symptoms recurred rather suddenly, and have continued. During this time, under medical advice, he has been taking various salts of potass, but without the least benefit.

Dec. 1st.—Complains of pain in back and limbs, much increased by any movement; has not got beyond the chair at the side of his bed for three weeks, and that he gets into with great difficulty; skin natural; tongue clean; bowels constipated; pulse 68, feeble; temperature 99°; heart-sounds normal. To have an aperient, and thirty grains of salicin every six hours.

3rd.—Not seen yesterday. Slept better last night than he has done for some time; feels decidedly better. His wife states that he is more cheerful than he has been for weeks; pains not so severe; pulse 68; temperature 98·4°.

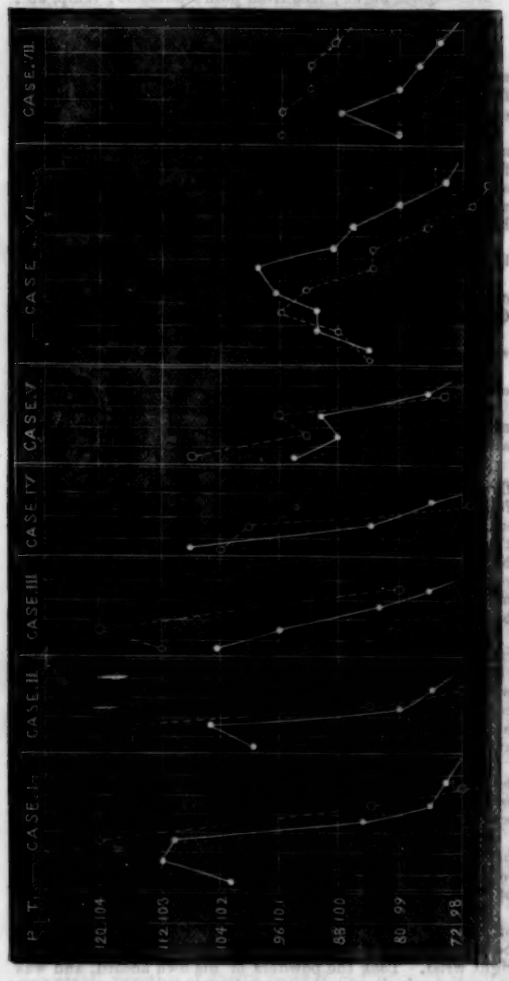
5th.—Feels much better; can move about the house freely, having only slight pain in the lumbar region and in the left leg; pulse 68; temperature 98·2°. To have fifteen grains of salicin every four hours.

He continued to improve for some six weeks after leaving off the salicin, when his symptoms returned as badly as before, and this time accompanied by pain and swelling of right wrist. Took the powders of his own accord, and was at work again in a week. Says that nothing ever did him so much good as the powders.

The accompanying charts will show at a glance the daily range of temperature and rate of pulse in the seven cases of acute and subacute rheumatism which have been given. The continuous white lines indicate the temperature, the dotted lines the pulse.

From an examination of these charts alone, especially of the first four, one would almost certainly conclude that they indicated the ranges of temperature and pulse of so many cases of febricula, so rapid and so decided is the diminution of fever which followed the administration of the salicin. A perusal of the details of the cases, however, indicates their true nature. So much febrile disturbance, accompanied by pain and swelling of joints and profuse acid perspiration, form a combination of symptoms which nothing but the rheumatic poison could produce. The sudden arrest of the painful symptoms, and the coincident rapid fall of pulse and temperature, followed so immediately on the administration of the salicin that it is impossible not to attribute them to its use. Cases of acute rheumatism do sometimes improve in the most unexpected manner, but I never saw a case get well so quickly as those of which I have given details above. A succession of such cases cannot but be

attributed to the peculiarity of the treatment. We have seen that this treatment has a good foundation in reason and analogy. The details of these cases afford, as far as a few cases can, practical evidence of its utility.



From so small an experience of salicin as I have had, I would not assert in anything like a dogmatic manner the full extent of its usefulness. I would simply indicate the following conclusions as those to which I have been led, and which, I hope, a more extended experience of its use may confirm.

1. We have in salicin a valuable remedy in the treatment of acute rheumatism.

2. The more acute the case, the more marked the benefit produced.

3. In acute cases, its beneficial action is generally apparent within twenty-four, always within forty-eight, hours of its administration in sufficient dose.

4. Given thus at the commencement of the attack, it seems sometimes to arrest the course of the malady as effectively as quinine cures an ague, or ipecacuanha a dysentery.

5. The relief of pain is always one of the earliest effects produced.

6. In acute cases, relief of pain and a fall of temperature generally occur simultaneously.

7. In subacute cases, the pain is sometimes decidedly relieved before the temperature begins to fall; this is especially the case when, as is frequently observed in those of nervous temperament, the pain is proportionally greater than the abnormal rise of temperature.

8. In chronic rheumatism, salicin sometimes does good where other remedies fail; but it also sometimes fails where others do good.

Regarding the action of salicin on the cardiac complications of rheumatic fever I have no experience. In Case 1, indeed, the muffled and indistinct character of the heart's sounds, which existed before its administration, disappeared with the general improvement which accompanied its use. But it needs not the details of cases to demonstrate that a remedy which curtails the duration, or mitigates the severity, of an attack of rheumatic fever, must of necessity diminish in a proportionate degree the risk of cardiac mischief. Neither is it doubtful that the general treatment most suited for rheumatic endo- or peri-carditis is that which most surely and speedily cures the rheumatism. Rheumatic inflammation about the heart requires the same general treatment as rheumatic inflammation of a joint.

The dose of salicin is from ten to thirty grains every two, three, or four hours, according to the severity of the case. Fifteen grains every three hours is a medium dose for an acute case. It is very possible that less might suffice; for I have not tried to find the minimum dose. It is very certain that a much larger dose may be given without producing discomfort.

Salicin is not soluble to any useful extent; it is best administered as a powder mixed with a little cold water. It is a very pleasant bitter. I have never found the least inconvenience follow its use.

When salicylic acid (originally prepared from salicin) was first introduced, I determined to try it; and in the one case in which I did have recourse to it, it seemed to do good to the rheumatism; but it caused so much irritation of the throat and stomach that I did not repeat it. This was, no doubt, due to its being impure; for Traube has lately been trying it in his wards at Berlin, and reports most favourably as to its action in rheumatic fever.*

It is the publication of these observations that has led me to give to the profession so soon my favourable and prior experience of salicin in the same disease.

I have no doubt that Traube's observations are correct, and that salicylic acid will be found efficacious in the treatment of acute rheumatism. But I have as little doubt that it is not so good as salicin for this purpose; for it is more apt to contain noxious impurities, it is not so pleasant to take, and it apparently requires a larger dose to produce its beneficial action.

I shall be greatly obliged if those who try the remedy, and do not care to publish their observations, would kindly forward to me the results of their experience, be it favourable or otherwise. The points to be specially noted are the state of the patient, before taking the salicin, as regards heart, pulse, temperature, skin, tongue, urine, joints, &c., with daily (or more frequent) observations of the same points while under its influence. Observations taken only once a day, to be taken as nearly as possible at the same time on each day.

Dundee.

REMOVAL OF A MELANOTIC SARCOMA, ORIGINATING IN THE SHEATH OF THE SARTORIUS MUSCLE, FROM A MAN AGED SEVENTY-FIVE.

BY G. B. FERGUSON, M.D., M.A. OXON.,
SURGEON TO THE CHELTENHAM HOSPITAL.

SAMUEL B——, aged seventy-five, of Snowsell, near Winchcomb, was admitted into the Cheltenham Hospital on Oct. 23rd, 1875, with a tumour the size of a small orange, evidently connected with the right sartorius just where it goes to form the apex of Scarpa's triangle. It was of six months' growth, and had recently increased rapidly. It was sessile on and closely attached to the muscle, and

* Stricker, in Berliner Klinische Wochenschrift, Jan. 3rd, 1876; Riess, in same journal for Dec. 20th, 1875; and Medical Times and Gazette, Feb. 5th, 1876.

firm generally, although soft in places. The skin covering it was adherent and bluish-purple in colour. No cause could be assigned or divined for its appearance, nor had any other member of his family, to his knowledge, ever been in any way similarly affected. His general health being good and his kidneys sound, it was determined, despite his age (only three months short of seventy-six), to remove the tumour. This was effected by an almost circular incision, including an inch of healthy skin in every direction, and carried through the fascia down to the muscles. The fascia being then stripped off, mainly with the fingers and the handle of the scalpel, the outer side being raised first, the tumour was brought away with it. The inner part of the dissection required much care, the growth overlying and in part originating from the sheath of the femoral vessels; indeed, for some weeks afterwards the femoral artery could be seen pulsating in the wound about one inch from its inner border. So cleanly did the fascia separate, that the appearance left in the wound was that of a very perfect dissection of portions of the sartorius, rectus, and vastus internus muscles. The wound was washed out with carbolic lotion (one to forty), and easily brought together by sutures. It was dressed with carbolic oil of the same strength.

The next two days, October 30th and 31st, do not call for notice beyond this, that his state was thoroughly comfortable and afebrile, and that the wound was perfectly sweet and apparently about to heal by first intention. On November 1st, however, his temperature being in the morning 100° and his pulse 80, and the patient feeling perfectly well, I detected a good deal of smell about the wound, which it was attempted, although without success, to remove by syringing with carbolic lotion. This failing, I had no hesitation in cutting the stitches and allowing the wound to gape widely; some discharge and shreds of slough were now more easily got at, and I had at last the satisfaction of rendering the wound perfectly sweet, and so leaving it. I gave directions that it should be cleansed and dressed thrice daily, and made the remark that this opening and cleansing had probably saved him from erysipelas or worse. The next two days, November 1st and 2nd, were passed in much comfort, as also was the morning of the 3rd. On the evening of the 3rd, however, his temperature rose to 103°, he became delirious, and a bright erysipelatous blush (the skin pitting deeply on pressure) was noticed at the upper part of the thigh; these symptoms appeared about eighty-four hours from the time when the wound was first remarked to be offensive. If I may conclude, as I think I may, that the impure condition of the wound was the cause of the erysipelas, it may be a matter of practical utility to remember that this inflammation took more than three days to follow its cause. The patient was in a small ward by himself, no other cases of erysipelas were or for a long time had been in the hospital; there can, therefore, be no doubt of his erysipelas having been truly autogenetic. This attack (for which twenty minims of tincture of perchloride of iron every four hours, and five glasses of port wine daily, with a liberal allowance of eggs, milk, &c., and the local use of oxide-of-zinc powder were ordered) lasted nearly a week, extended almost into the axilla, and tried sorely the powers of the patient. The attempt to produce healing by first intention had, however, converted a nearly circular wound into one five inches by two inches and three-quarters, and had so, according to the average rate of healing given by Mr. Callender—half an inch per week (St. Bartholomew's Hospital Reports, vol. ix., p. 20), shortened his period of recovery by more than a fortnight. He left the hospital on January 10th, 1876, in good health, and with the wound well healed.

Some measurements of the rate of healing may be worthy of mention. As soon as, after the disappearance of the erysipelas, the wound was healthily granulating, it was dressed with sweet oil, and drawn together with strapping. Eight days of this treatment reduced the size half an inch in length by three-eighths in breadth, but after eight more days of the same treatment any further progress was inappreciable. The common red lotion (a grain of sulphate of zinc, ten minims of compound tincture of lavender, to an ounce of water) was now applied, and the marginal granulations, after the old plan of Mr. Higginbottom, were touched every day or two with stick nitrate of silver. In seven days the wound had healed nearly one inch in length by half an inch in breadth. On comparing, however, fourteen days' progress under red lotion, when the caustic was occasionally used, with another fourteen days under the same dressing without the application of the caustic, the results were unexpectedly found to be practically the same, or one inch of healing lengthwise by six-eighths crosswise. The nitrate of silver may, therefore, be concluded not to have contributed at all, whereas the red lotion had been of real service in promoting cicatrisation. The tumour weighed four ounces, and presented a gelatinous, semi-transparent, opaline basis, marbled with black streaks and patches. Microscopically it showed the usual characters, being constituted mainly of ovoid cells containing granules of brown pigment. These cells had mostly a diameter of one-thousandth of an inch, but many were only one-half, whilst some few were twice this size. This patient was an excellent example of the class of old persons written of by Sir James Paget (Clinical Lectures, p. 7) as likely to bear operations well, the class of those "old people that are thin and dry and tough, clear-voiced and bright-eyed, with good stomachs and strong wills, muscular, and active."

Cheltenham.

NOTES OF TWO CASES OF PROLAPSE OF THE UMBILICAL CORD, IN WHICH THE POSTURAL METHOD WAS EMPLOYED.

BY WM. BERRY, M.R.C.S. ENG., L.R.C.P. & S. EDIN.

CASE 1.—I was summoned to attend Mrs. A——, aged about thirty-two years (in her third labour), at 11 P.M. on the 21st of May, 1875. She was attended by a midwife, and had been in labour all the afternoon and evening. On my arrival I was informed that she had pains often and pretty severe, but "all was not right." On examination I found a coil of the umbilical cord projecting about six inches outside the vulva, the umbilical vessels pulsating vigorously, and, on further examination, found the os uteri almost fully dilated, and the head presenting in the right cranial position. On inquiry I was told that the cord had been down for two hours, having descended with the escape of the liquor amnii. I returned the cord and replaced it as well as I could during the interval of a pain, and protected it when the pains came on; but the head made no progress, although uterine action appeared frequent and strong; the cord descended, and it was with difficulty that I was able to keep it within the vagina. I now had her placed on her elbows and knees in bed, and again replaced the cord; the pains continued pretty regular and strong, but the head made no progress towards descending. After waiting for about an hour, and as there was pulsation in the cord still, I thought I might possibly save the child by delivering her, and as it appeared that it was no use waiting, I determined to apply the forceps. I therefore had her placed in the usual obstetric position, and with some difficulty applied the forceps (as the head was high up and the cord in the way). I protected the cord as well as I could with my fingers, and delivered her in a very short time of a fine male child, which was, however, still-born. I tried with frictions and artificial respiration to resuscitate it, but without avail. The placenta was easily removed. She made a rapid recovery, and was soon able to follow her household duties.

CASE 2.—I was summoned by a midwife to attend Mrs. B—— (multipara), at 6.30 A.M. on the 17th of June, 1875. She informed me that the patient had been in labour all the day previous, and also through the night, but she made no progress. On examination, I found the os uteri almost fully dilated, soft and yielding, the membranes entire, and through which I could feel the head presenting, but near the posterior lip of the os I could feel something which gave a pulpy impression to the finger. I ruptured the membranes, and found, with the escape of the liquor amnii, that the cord was presenting with the head, and that this was the cause of the pulpy impression. I now tried to replace the cord, but with each pain it descended. I next had the patient, as in the former case, placed on her elbows and knees in bed. During the interval of a pain I replaced the

cord, and held it when the pains came on. These were, however, feeble, so that a drachm of liquid extract of ergot was administered, and repeated in half an hour. The pains now increased in frequency and strength, and the head entered the cavity of the pelvis in the fourth cranial position. As the head descended and filled up the cavity of the pelvis, I held up the cord and protected it with my fingers; eventually, as the head approached the outlet, I hooked the cord over the occiput, and then allowed the patient to resume the usual position on the left side, when, with a few more pains, the head was expelled, the face towards the symphysis pubis; the body followed afterwards, and she was delivered about 7.45 A.M. of a fine female child in a state of asphyxiation, but with artificial respiration, frictions, cold and warm douches, it readily recovered. The placenta was easily removed, and I found that the cord was of unusual length, measuring at least thirty-six inches. It was inserted into the edge of the placenta, giving it a battledore appearance. Mother and child did well.

Remarks.—I have reported these two cases so that the postural method of treatment may be brought more prominently before the profession, and, in suitable cases, lead to its adoption. Prolapse of the funis is not very common, fortunately for the offspring, for, according to the statistics of Dr. Churchill in this country, it occurred 699 times in 152,574 cases or 1 in 218.

The danger to the mother is not more than that which occurs in ordinary cases, but to the child the danger is very great—more than one half being lost. The "postural" method, which was first recommended by Dr. Thomas, of New York, is the most practicable in treating these cases. The many instruments that have been devised for replacing the cord should be abandoned in favour of this method, which is comparatively easy to carry out in practice. The late Dr. Lumley Earle, however, was of opinion that the patient's hips should be raised, and the head lowered so as to form an inclined plane, instead of placing the patient on the elbows and knees, being easier, in his opinion, for the patient to rest; but in neither of the two cases was any complaint made of uneasiness or fatigue from being placed in that position.

In Case 1 it is my belief that the child would have been saved had labour progressed and the head entered the cavity of the pelvis; as it was, there was nothing left but to apply the forceps to effect delivery. Uterine action appeared powerful, so that ergot in this case would have been out of place.

In those cases where the pains are feeble, as in Case 2, ergot will be found to aid nature very materially, and assist delivery. In replacing the cord it should be effected during the interval of a pain, held in position by the fingers, and protected during the pains, while the presenting part is descending.

Wigan.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

ON CASES OF EPILEPTIC SEIZURES WITH AN AUDITORY WARNING.

(By Dr. HUGHLINGS JACKSON.)

IT is possible to mistake cases of Menière's disease (auditory vertigo) for cases of epilepsy. On the other hand, there is the possibility of taking certain cases of epilepsy to be cases of Menière's disease; for some epileptic seizures begin by a sound in the ear as paroxysms of auditory vertigo do. It is to be particularly noted that we speak, of course, of cases of epilepsy which *begin* by a sound or noise, and by one which is so definite that the patient gives it as the first symptom or warning of his seizures. This is a rare warning—one much less common than an "aura" of coloured vision or even than one of smell. It is far less common than that strange feeling referred to, or near to, the epigastrium (solar plexus?) by many epileptics; the last-named "aura" is, Dr. Hughlings Jackson thinks, a crude development of certain of those sensations which Lewes calls "systemic" and Bain "organic." Dr. Jackson thinks the auditory is a sense akin to certain of the systemic sensations, and that too high rank in the intellectual scale is given to hearing. Although it may come next to sight, he thinks that it stands far below it. He believes that the anatomical substrata of words are motor (articulatory), as do Bain and Ferrier; but supposing them to be auditory, it is to be observed that the sounds of words serve only as symbols. Sounds, except as symbols, serve comparatively little in mental operations; most mentation, whether healthy or morbid, is carried on in visual ideas.

The several different sensory warnings we have mentioned should be studied methodically, with some reference to one another. The sensations we lump together as Systemic are, of course, exceedingly diverse and highly compounded. They are strangely neglected in the sense that they are not studied in their relations to other more special sensations. Dr. Hughlings Jackson believes all the senses (special, common, and systemic) are represented in the highest cerebral centres, chiefly in those of the posterior lobes. He thinks, however, that the more *special* the sense the more unequal is its bilateral representation, and that the right is the side of the brain in which the most special senses have the leading representation, the left the side where the systemic have the leading representation.

The following is a case in which an auditory warning preceded severe epileptic seizures. The notes of it were taken by Dr. Sturge, but what follows is only from part of them.

Warning.—This is well marked, and consists of a sound like a distant railway whistle; it was heard by the *left* ear, and as if coming rapidly nearer to her until it was very loud. Before mentioning an additional sensation which she had before losing consciousness, we are obliged to say that next time the woman was questioned she denied that she had said that the noise "came nearer." Hence we must hesitate in drawing analogies. But the "coming nearer," if it were so, may have depended on rising of pitch in the sound *simulating* "coming nearer." (If coloured vision be an "aura" of an epileptic paroxysm, it is, Dr. Hughlings Jackson has observed, as Falret had done before, *most often* red; it is the colour of "lowest pitch" which is usually developed *first*.) The whistle of a rapidly approaching engine seems to rise in pitch, and this is generally explained by saying that an increased number of vibrations affect our ear in a given time (compare Huggins' method of determining speed of stars by spectroscope). To return to the woman's case. The sound or noise lasted only for a "second," not long enough, she said, for her to lay herself down. It was "not like an ordinary singing in the ears"; she had been subject to this, but it had ceased. The sound is paroxysmal, and is always followed by a fit. She says she has not noticed that she is temporarily deaf after the seizure. Another warning she has is that of a curious darting sensation across her eyes from right to left; this sensation she cannot describe. Its passing to the left, considering its association with the left-sided auditory aura, is possibly owing to the turning of her eyes to the left, as—so she says—the next thing after the visual sensation is that her head *seems* to turn to the *left*, the whole body seems to turn to the *left*, and then she becomes insensible. She cannot say whether there is any *actual* movement to the left or not. In migraine there is a true one-sided—a hemiopic-like—development of visual sensations, but it is possible that the woman's feeling of the passage of the visual sensation from right to left is owing to simultaneous turning of the two eyes to the left.

This is evidently a case of epilepsy; the patient bites her tongue, which shows that the paroxysms are severe. Further evidence of epilepsy is, that after the paroxysm she acts automatically before she regains consciousness. Dr. Sturge notes that she told him that "if the fit occurs in the daytime, she gets up and goes about any work that she was doing before her attack. Thus she has many a time

found herself standing at the wash-tub washing linen, or sitting in a chair trying to sew." These facts almost alone would point to a prior epileptic seizure. Elaborate automatic actions are very common after epileptic seizures.

The turning of the head to the *left* (if her account is to be trusted) points, Dr. Hughlings Jackson thinks, to a "discharging lesion" of the *right* cerebral hemisphere—the auditory "warning" being the first symptom from the discharge. The precise localisations of the parts of the cerebral hemisphere where each of the senses is most represented will be greatly helped by the researches of Ferrier.

A highly intelligent and thoroughly well-educated young man, whose account is to be trusted, described epileptic seizures as beginning by an auditory "aura," which he spoke of as a "humming," and also as a "rushing." It gets louder and louder, but does not seem to come nearer, nor to alter in pitch. It always begins in the left ear, but may extend to the right ear. It becomes louder and louder as his head is turned round to the left. This sound does not always precede his paroxysms, but he says his head invariably *turns to the left*. The words he uses to describe this in his report are "the last thing he is conscious of is an attempt to look over his left shoulder; this is, of course, involuntary." In this case, as in that of the woman, the patient does things automatically when the paroxysm is over. He instances that having an attack when feeling a patient's pulse he, on recovery in another room, began to feel the pulse of a female relative attending on him. He has shown more extravagant conduct after a seizure "trying to get out of the window," &c.

It is interesting to note that in this case also the head turns to the left, the sound being referred to the left ear. It is, Dr. Hughlings Jackson thinks, a matter of very great importance to note the side to which the head turns when there is any sensory warning, from the most special to the most systemic, for the side turned to points to the opposite side of the brain as that discharged. We should carefully note the facial aspect. Does pallor of the face or stoppage of pulse, or both, occur mostly at the onset in those cases in which the patient's warning is an epigastric sensation? (Does the pallor chiefly affect those parts of the body which blush most in healthy emotion?) To which side, if there be turning, does the head generally turn in cases where there is respectively an aura of coloured vision, smell, sound, systemic (i.e., epigastric) sensations, &c.? Facts on these points would be some help towards determining the side of the brain in which particular sensations have the leading representation, or helping to show that there is no difference in their representation in the two sides, or that epileptic paroxysms throw no light on the matter. There are, however, few things less trustworthy than reports by patients or their friends as to the side to which the head turns at the onset of convulsive seizures. The facts of the second case we have related are, however, thoroughly trustworthy.

DORSET COUNTY HOSPITAL.

NECROSIS OF THE ENTIRE THICKNESS OF THE FEMUR; SUCCESSFUL REMOVAL.

(Under the care of Mr. JOHN TUDOR.)

J. B——, aged ten years, was admitted on July 31st, 1873, with disease of the lower part of the right femur, accompanied with diffuse abscess, involving the greater part of the outer side of the thigh and leg. The history seemed to indicate that there had been exposure to damp and cold, with an inferior nutrition. The necrosis involved the entire shaft of the bone to the extent of about an inch or two, near the junction of the lower and middle third. The piece of bone was completely detached, so that the limb could be moved in any direction at the point of separation when the upper part of the limb was fixed. The abscess was opened freely, and an exploration made with the finger, which could be passed between the loose bone and the under surface of the periosteum. This membrane had developed very marked reparative action, indicated by a roughness upon the surface, clearly of an osseous nature, which opposed a stiffened and unyielding impression to the finger. Mr. Tudor was induced to make an effort to save the limb, partly on account of the patient's youth, but chiefly because of the condition of the periosteal membrane, but the circumstances were not very encouraging. Mr. Tudor had under his care some years ago a somewhat similar case of a boy with a compound comminuted fracture in nearly the same locality, where a portion of bone about the same size as that in this patient was detached, and the patient made a good recovery. In the present instance, great care was required in the removal of the fragment to avoid injuring the vessels, and for this end a long incision was made, to the extent of eight or nine inches, on the outside of the limb. The boy bore the operation well, though he suffered rather severely from the effects of the chloroform. A long interrupted splint was applied, and the wound dressed with carbolised oil and tow. Much care and trouble were needed for months, and most ungrudgingly and faithfully bestowed by the house-surgeon, at that time Dr. Hollis. After a long residence in the hospital, attended with many ups and downs, the boy was discharged, with a limb two or three inches shorter than the opposite one, and somewhat bowed, but firmly united. Mr. Tudor heard, in October last, from Dr. Delamotte, of Swanage, "that the boy is now quite well, and able to walk briskly."

The details of the case afford much interest and practical instruction. But one of the chief objects in publishing such a case is an impression that seems to prevail that no case of the kind, as regards treatment and results, has been recorded, and therefore if a similar condition of disease has existed before we may infer that amputation was resorted to.

EDINBURGH ROYAL INFIRMARY.

CASE OF ACUTE NECROSIS OF THE TIBIA, IN WHICH THE DISEASED SHAFT OF THE BONE WAS REMOVED BY RESECTION, LEAVING THE PERIOSTEUM; REPRODUCTION OF SHAFT.

(Under the care of Professor SPENCE.)

IN the subjoined cases the remarkable reparative power of periosteum was well shown. In the second case the whole of the shaft of the tibia and the greater part of the shaft of the fibula were taken away, and yet the patient recovered with a strong limb. Clinically, there can be little doubt that where a large portion of bone is irrecoverably necrosed, the sooner it is removed the better.

The following notes were taken by Dr. Scott, late resident surgeon:—

R. H——, aged ten, was admitted to Ward 18 (surgical) on the 27th March, 1875, suffering from acute necrosis of right tibia. Three weeks before admission the patient had been kicked by a horse on his right shin. The leg subsequently became swollen and painful, and two abscesses formed in front of the tibia. These were opened a week before admission, but as profuse hæmorrhage occurred from the periosteal vessels, he was sent into the infirmary.

On admission the tibia was seen white and bare through the incisions which had been made to evacuate the abscess. From these openings there was a copious discharge of pus. The boy was very weak and anæmic from loss of blood. His pulse was weak and rapid. Operative interference was considered unadvisable at the time, owing to the exhausted state of the patient. He was accordingly put upon a tonic course for some days, and a stimulating lotion was applied to the incisions.

On the 5th of April, the patient being put under the influence of chloroform, and Esmarch's apparatus applied, Professor Spence connected the two previous incisions, thus exposing the whole length of the shaft of the bone, which was bare in its entire extent. The periosteum all round the bone was then separated by means of a periosteum scraper, and the entire shaft of the bone was removed, after resection above and below with the chain saw. Scarcely any blood was lost. The wound was stuffed with lint soaked in carbolised oil. A posterior splint was applied, and the limb slung.

Next day short lateral splints were applied in addition, so as to give shape to the limb. The stuffing was removed, and the wound was dressed with a many-tailed bandage of lint soaked in a solution of boracic acid.

The patient went on well, and by the beginning of June

the new bone thrown out from the periosteum felt hard and firm, and had the same shape as the normal tibia. The wound had by that time cicatrised over in the centre. Patient was ordered ivory-dust in form of jelly. The upper and lower parts of the wound healed slowly, and small spicules of bone were occasionally removed from the epiphyses.

The patient was discharged on August 8th. The bone was then very strong, and the tibial ridge only deficient at the upper part, where the periosteum had ulcerated previous to admission. A posterior splint of poroplastic felt was directed to be worn for some months, so as to obviate any risk of the new bone yielding under the weight of the body.

ACUTE NECROSIS OF TIBIA; RESECTION AND REMOVAL OF DISEASED SHAFT AND MOST OF THE FIBULA, LEAVING THE PERIOSTEUM; CURE.

(Under the care of Professor SPENCE.)

The following notes were taken by Mr. Dunlop, clinical clerk:—

Annie H——, aged eleven years, was admitted to Ward 15 (surgical), Aug. 7th, 1875, suffering from necrosis of right tibia. Six weeks before admission the patient felt pain in the right foot, which prevented her from wearing her boot. Considerable swelling having taken place, she applied at the hospital, and was admitted to the medical house, where warm water was applied. The swelling diminished, but a sinus formed at the upper part of the tibia. She went home, where she remained for a week, and then applied to Prof. Spence, who admitted her to Ward 15.

On examination the sinus at upper part of tibia was found enlarged by ulceration, and a large, firm piece of bare dead bone was seen. Another sinus had also formed about two inches above the internal malleolus, and dead bone was also felt there. Lint, dipped in carbolic lotion, was applied. Pulse 102; temperature 100·4° F.

August 11th.—Esmarch's apparatus having been applied, Professor Spence removed the whole length of shaft of tibia by separating the periosteum and resecting the tibia immediately below its tubercle at the upper part, and at its lower end about an inch above the internal malleolus, by means of the chain saw, leaving only the thickened periosteum. Before the compressor was taken off, the cavity left after removal of the bone was stuffed with oiled lint, and thus the operation was rendered perfectly bloodless. The limb was then laid on a wire splint, and slung.

12th.—Pulse 120; temperature 100°. Charcoal lint applied as dressing, oiled lint taken out, and many-tailed bandage applied to give support.

16th.—An infusion of eucalyptus globulus used as dressing.

Patient continued doing well until the 31st, when she appeared flushed, and complained of sore-throat. Pulse 130; temperature 100°. Chlorate of potash was ordered as a gargle, and also given internally. She soon recovered from this, and the general health improved until Sept. 12th, when a large abscess which had formed over the head of fibula was freely opened, and a large quantity of pus escaped. A considerable sequestrum of the fibula, nearly its upper third, and its head with articular surface complete, was removed. She was ordered one grain of sulphate of quinine and five drops of dilute sulphuric acid thrice daily. Improvement was now marked, and a large mass of new bone was thrown out, taking the place formerly occupied by the tibia.

Sept. 13 h.—Several small abscesses which had from time to time formed over the fibula have been opened, and to-day one was opened which had formed in popliteal space. Considerable pieces of dead bone have also been removed or discharged from lower part of fibula.

27th.—A lateral splint applied to outside of limb to give support, and pad behind to prevent bending. The cavity continues filling up with new bone. No more pieces of dead bone discharged.

Oct. 20 h.—The parts are rapidly becoming consolidated.

Nov. 1st.—Much in same condition.

Feb. 4th, 1876.—Prof. Spence divided the tendo Achillis, which had been contracted before her admission to the hospital.

22nd.—To-day Prof. Spence enlarged an opening above the outer malleolus, and removed a large sequestrum of the fibula. He at the same time divided the distal part of the long flexor of the great-toe, which had become contracted and had displaced the distal phalanx.

25th.—The case may now be considered cured, as the shaft of the tibia has been reproduced and feels solid, although it is not considered advisable to remove the splint or permit her to rest on the limb, as the fibula has been nearly removed throughout its entire length in portions at different times during the progress of the case.

In this case the reproduced bone is not so shapely as in that of R. H——. It is more flattened, and, owing to the loss of skin and periosteum in front previous to the operation, the cicatrix is broad; but the leg is strong from the deposit of new bone.

Note by Professor SPENCE.—The cases just narrated are, I think, specially instructive, as showing the advantages of resection in certain cases of acute necrosis. I find this method sometimes spoken of as if shortening the period of treatment were its object. It could scarcely be advocated on that ground. Its real advantages are—(1st) The early removal of a diseased texture which is injuriously affecting the health and keeping up irritative fever. (2nd) By removal of the diseased shaft to diminish the risk of neighbouring joints becoming affected, thus necessitating amputation under most unfavourable conditions. (3rd) Obviating the risk of repeated hæmorrhages from ulceration of enlarged periosteal vessels. Whilst the result of these and other similar cases shows that the removal of the diseased bone is speedily followed by relief of the constitutional disturbance, and that we can trust to reproduction of bone from the periosteum left.

The two cases were testing cases for the operation, as both patients were extremely debilitated; and in the case of the girl, the sloughing of the integument and periosteum over the front of the tibia, and the subsequent necrosis of the fibula, made me very doubtful what might be the result.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual general meeting of this Society was held on Wednesday, the 1st inst., the President, Sir James Paget, in the chair. There was a large attendance of Fellows, and the feature of the evening was the eloquent and discriminating address delivered by the President, which consisted of obituary notices of deceased Fellows. The chair was taken at 8 P.M., when the ballot for the election of officers and council for 1876-77 was opened.

The abstract of the income and expenditure of the Society for the year 1875, having been previously distributed among the Fellows, was taken as read, and the hon. secretary, Dr. John Harley, proceeded to read the report of the President and Council, which contained little more than the usual financial and statistical details as to the numbers and position of the Society. The total number of Fellows is 650; 20 new Fellows had been elected during 1875, of whom 3 were honorary, 14 resident, and 3 non-resident. Twenty-one had been removed by death, including two of the hon. fellows—viz., Dr. G. Andral, of Paris, and Prof. Luigi Porta, of Pavia,—the latter of whom had only last year been elected to the Society. The report referred to the system of payment of composition for subscriptions, adopted by the Society, which appeared now to be telling somewhat to the disadvantage of the income of the Society, and recommended that in future fifty copies of communications to the Transactions should be given to their authors instead of twenty-five (which alteration in the bye-laws was adopted at a later stage of the proceedings). It also mentioned that a committee had been appointed to examine into the relations of membranous croup and diphtheria, consisting of Drs. Charles West, Dickinson, Semple, Gee, Hilton Fagge, Payne, John Harley, and Mr. Howse. Lastly, it was stated that a new catalogue of the library and subject-index were in course of preparation, and would appear simultaneously.

The adoption of the Report was moved by Dr. Semple,

and seconded by Mr. H. Marsh, and that of the special alteration in the bye-laws, relative to the number of copies of papers to be presented to their authors, by Dr. Tilt and Dr. T. G. Turner. Both motions were carried unanimously.

The PRESIDENT then addressed the meeting. In his opening remarks he said the Report which had been read told of all the events of the past year which it was the duty of the Council to relate; and they were very few, for the year had not been an eventful one in the history of the Society. The usual work had been done; valuable papers had been read, a few had been fully discussed; a good volume of Transactions had been published; and the Society had maintained the excellence of its library and other means of study for its Fellows. Thus in the seventy-first year of its existence the Society had fulfilled the purpose of its foundation, but the year had brought him no other subject for the annual address than that of the friends and fellow-workers whom the Society had lost. He had no other duty than to read an "In Memoriam." He then gave biographical notices of all the Fellows deceased during the year, interspersed with such thoughts and lessons as the career of each seemed to teach, and especially dwelt upon the lives and works of Dr. George Robinson of Newcastle, Sir Charles Locock, Prof. Porta, Dr. W. R. Beaumont of Toronto, Mr. W. Acton, Dr. C. Squarey, Mr. G. G. Gascoyen, and M. Andral. The other deceased Fellows noticed included Dr. Cameron Cumming, Dr. G. Canney of Bishop Auckland, Mr. Edwin Seacombe, Mr. J. D. Hill, Dr. Joseph Ridge, Mr. W. J. Clarke of Huddersfield, Mr. Geo. Lewis Cooper, Dr. William Richardson, Dr. James Part, Dr. Robert Dickson, Mr. H. J. Chapman, Mr. Robert Brown of Cumberland, and Dr. Cæsar Casellis.

At the conclusion of the address the most cordial thanks of the meeting (proposed by Mr. Charles Hawkins and seconded by Mr. Christopher Heath) were voted to the President with great applause.

A vote of thanks to the retiring members of the Council —viz., Sir W. Jenner, vice-president, Drs. Andrew Clark, Dickinson, Priestley, and H. Weber, and Messrs. Callender, Gay, and Streatfeild, was acknowledged by Mr. Callender.

Mr. Spencer Wells then moved, and Mr. Thomas Smith seconded, "That the best thanks of the Society be presented to the retiring honorary secretary, Mr. Cooper Forster, for his zealous and valuable services to the Society during his term of office," which was carried with acclamation. Mr. Cooper Forster, in acknowledging the vote, warmly referred to the aid he had received during his official career from the resident assistant-librarian (Mr. Wheatley), and the meeting testified to their sense of the latter's zealous services by passing a vote of thanks to him, proposed by Dr. Barclay, seconded by Mr. Charles Hawkins, and cordially supported by Dr. Sibson, one of the honorary librarians.

The result of the ballot for officers and Council for 1876-7 was then declared. The names of the gentlemen elected will be found on page 326.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on March 7th, Mr. Geo. Pollock, President, in the chair. This was the third evening devoted to the discussion upon syphilis, in which interest has by no means abated. Dr. Magrath and Mr. Arthur Roper were elected members of the Society, in the course of the evening.

The adjourned discussion on Syphilis was resumed by Dr. BROADBENT, who said that he was glad that Mr. Hutchinson did not go over the old battle ground of unity and duality; for, although he was hardly prepared to admit that the latter hypothesis was dead, it might be considered so as far as the present discussion was concerned. The interest he took in the question was that so ably put forward by Dr. Wilks—viz., the gradual invasion of the system by a poison. He had nothing to offer with regard to visceral lesions in secondary syphilis, and should say nothing about the relations between syphilis and scrofula. But he would say something with regard to the later history of congenital syphilis, upon which Mr. Hutchinson had invited discussion, giving as his experience the non-liability of such cases to nervous disease, to gummata or nodes, and to the absence of any serious disease late in life. On the first point he coincided, for he had seen hardly any examples of syphilitic affection of the nervous system in infants. But he had seen cases of large gummata in the tongue, and in the skin, and extensive ulcerations of the palate—as in tertiary syphilis—in the congenital affection. The most important point was that these cases were not liable to any serious disease late in life. This supposed that they enjoyed an average longevity; but it was interesting to note how very rarely the syphilitic physiognomy, and the usual signs of congenital syphilis, were met with in persons of middle life. From this he would venture to say that somehow or other these subjects of congenital syphilis do disappear. Mr. Hutchinson has stated that two of his cases died from contracted granular disease of the kidney, which was attributed to the long-continued use of iodide of potassium. He would like to have Mr. Hutchinson's data on these cases, because he (the speaker) was in the habit of giving large doses of the salt, and yet he had only seen one case in which the administration of the drug could at all be credited with the production of the disease, and that when another cause was in operation — viz., frequent pregnancies. He was, therefore, inclined to attribute the occurrence of contracted granular kidney, especially in early life, to congenital syphilis. He had seen two cases, one of a female eighteen years of age, and the other a male thirty-three years old, in which no other explanation than congenital syphilis could be afforded. Some of these subjects may die from amyloid disease, and we had it on Dr. Fagge's authority that syphilis and suppuration were the only two causes of amyloid degeneration. He had seen cases of this affection occurring in early life without any suppuration. Such must be accounted for by congenital syphilis. Lastly, he had met with a case of aortic aneurism in a woman, who presented a rupial eruption and the physiognomy of congenital syphilis. With regard to the comparison of syphilis with the specific fevers, he would ask them to circumscribe the class of fevers with which the comparison was made. There was no doubt that syphilis was a blood-poison. Now, among these blood-poisons there is a well-known class—the fevers—all characterised by these common features—1st, the poison is introduced from without, derived from a pre-existing case; 2nd, the poison is reproduced in the individual, who becomes thereby a source of contagion; 3rd, they run a definite course, and have a different duration; 4th, they occur only once during life. This group, with which Mr. Hutchinson compares syphilis, does not include pyæmia nor ague. If the affinity of syphilis to them can be established, then an important step is taken. The third condition, however, is not fulfilled by syphilis, and he thought it was on account of this irregularity in the course of the disease that Mr. Hutchinson places the tertiary symptoms among sequelæ. Basing his position upon the symmetry of lesions as indicative of blood-disease, Mr. Hutchinson limits the febrile stage to the secondary stage, and places tertiary manifestations among sequelæ, because they have no symmetry. Sir James Paget, however, has pointed out that many of the acknowledged blood-diseases do in their later stages cease to be symmetrical. Moreover, there is something specific about the gummata which renders them less capable of comparison with the sequelæ (e.g., thrombosis, necrosis, &c.) of other fevers. The latter may arise from other causes than the fever, but the gumma is peculiar to syphilis. The sequels of enteric fever are simply examples of some tissue rendered vulnerable by the disease breaking down under some local strain. The purulent catarrh of the middle ear following measles is not specific, and only from one point of view could the parotid bubo of typhus, and the renal affection of scarlet fever, be so regarded. Hence tertiary lesions cannot be called sequelæ in the same sense as the sequelæ of true fevers are so called. As to the hypothesis of regrowth of deposits, he could give no parallels from other fevers. He thought that similarity in histo-

logical structure was carried too far; and all one was justified in stating was that there was merely a continuity in the stages of syphilis. Histological similarities were not of much importance where clinical differences were so marked. Other difficulties in accepting the view that tertiary lesions are sequelæ might be stated. There was the fact mentioned by Mr. Hill, that grave tertiaries are much more likely to occur in cases where the secondaries have been very slightly developed. Of course this could be explained upon the hypothesis of the regrowth of residues of the syphilitic germs, which, under favourable circumstances, are developed after a long period of latency. Then a parent who has reached the tertiary stage may bear a child, which would begin with the secondary stage. The difficulty is, not that the child has secondary symptoms, but that it has syphilis at all. If it is transmitted as such, it can hardly be otherwise than as a disease of the blood, or rather of the tissues. For of course the syphilitic virus is not strictly transmitted by the blood, but by the germ or sperm-cell. While on this point, he would ask whether the severity and fatality of infantile syphilis were due to the fact of infancy or to that of heredity. Material for answering this question might be found in examples of vaccinal syphilis. There is yet one other difficulty in the view that tertiary lesions are sequelæ—viz., that a female may become syphilitic by bearing a syphilitic fœtus. In such cases there may be no secondary symptoms at all; the manifestations are wholly tertiary. He based this assertion upon cases of syphilitic affection of the nervous system. He had seen many cases of women in which the only fact that could be elicited was that they had borne a syphilitic infant or a series of syphilitic children, and then suffered from an outbreak of nervous symptoms. Mr. Hutchinson had told him that he had come to the same conclusion twenty years ago, but had abandoned it; and a recent German writer had taken the same position in criticising Mr. Hutchinson while maintaining a theory that syphilis affected the formed, but not the fluid, parts of the blood. But he (Dr. Broadbent) held his conclusions with considerable confidence. Much evidence bore them out. He saw a woman after three successive pregnancies, who on each occasion (and then only) when bearing a syphilitic child suffered from grave ulceration of the pharynx. It might be argued that pregnancy lowered her health and favoured the appearance of the ulceration. He had seen another case, that of a female with syphilitic disease of the nervous system, which yielded at first to iodide of potassium. She again came under his care with renewal of the symptoms, which resisted treatment. She was then pregnant with a syphilitic fœtus; she miscarried; took the iodide, and recovered. Lastly, she again became pregnant, and died from the nervous disease. These cases tend to show that a woman may get syphilis from the fœtus. He had thus fully set forth his difficulties—that tertiary lesions are mere sequelæ,—not because he objected to the theory which places syphilis among the fevers, but because he had great confidence in his theory, so much so that he thought we may be called to revise our treatment of fevers by the knowledge gained from the course of syphilis. The sequelæ of other fevers are not specific; the tertiary lesions of syphilis are eminently so.

Dr. BUZZARD would only allude to two points of Mr. Hutchinson's address—first, as to the occurrence of visceral lesions in secondary syphilis; and, second, that tertiary gummata are local regrowths in formations left over from the exanthem stage. With regard to the first of these points, he would confine himself to syphilitic affections of the nervous system. It must be remembered that for a long time nervous symptoms in syphilis were attributed to disease of the bones of the skull, and it was only in process of time that the membranes, neuroglia, and bloodvessels were found to be the seat of syphilitic formations. Although the occurrence of affections of the nervous system in secondary syphilis was admitted, yet the frequency of their occurrence was underrated. Out of 100 cases, which, clinically, were examples of syphilitic affection of the brain, the mean age was thirty-five years. In this series of cases he had been careful to exclude any which were complicated with renal or cardiac disease; and in only two was there any history of injury, but of these cases, in 83 the date as to when syphilitic infection occurred could be fixed. Of this number, in 56 the nerve-symptoms ensued at a period longer than five years from the date of primary infection, and 27 below five years. In other words, in one-third of the cases, disease of the nervous system showed itself under five years from the date of infection. Dividing the whole series into periods of five years, this result came out:—Below five years, 27 cases; between five and ten years, 23; ten to fifteen years, 25; between fifteen and twenty years, 6; twenty to twenty-five years, 2 cases. Whilst of the 27 cases of nervous disease occurring within five years of infection, 6 occurred under two years, 4 under three years, 6 under four years, and 11 between four and five years; these cases including hemiplegia, convulsive disorders, and paraplegia. No case of optic neuritis occurred under three years' date. Out of the total 100 cases, optic neuritis or atrophy occurred in 15; paralysis of the orbital muscles in 20; disseminated choroiditis in 5; and old iritis in 2 cases. As to the symptoms, the early cases presented no marked difference from those at which the nervous symptoms appeared at a later date. They had this peculiarity: indication of vaso-motor irritation—viz., disposition to fainting, contraction of retinal veins, large pupils, and acceleration of heart. He had also seen mental symptoms, sometimes almost maniacal, in early syphilis. Clinical experience, then, did not show striking differences in the pathology of the early and late stages. On the second point he was inclined to agree with Mr. Hutchinson and Dr. Wilks. He thought it most probable that the lines of the future gummata were laid down in the exanthem stage. Absence of symmetry (with exception of the optic neuritis, which, however, occurred from one-sided lesions) was peculiarly evident in these nervous lesions. Gummata in the brain are almost always unilateral. The occasional recurrence of hemiplegia &c. pointed to a local deposit and not to a general blood state. With this also the absence of fever accords. Dr. Buzzard concluded by pointing out that the lymphatic system was especially singled out in syphilis, instancing as evidence of this the frequent occurrence of gummata in the situation of bursal sacs and around bloodvessels. It was not unlikely that the germs of the disease, having gained entrance into the lymphatic system, then became inert until some circumstance occurred to call them into activity.

Sir W. JENNER, in response to the President's invitation, said that he would make but very few remarks. In the first place he must object that acute specific diseases are not always illustrations of symmetry. Typhoid fever surely showed no symmetry in its manifestations. On the other hand, psoriasis, an affection of the skin and not of the blood, is symmetrical. He could not see that symmetry necessarily depended upon a blood condition, nor that blood diseases were necessarily symmetrical. With regard to sequelæ, diphtheria, an acute specific disease, having its origin in a special poison, is followed by definite and peculiar sequelæ. Having run its course—at the end of two, three, or four weeks—the child may begin to see badly, the muscles of the eye are weakened, then there is regurgitation of fluids through the nose, and then it staggers in its gait. Surely this diphtheritic paralysis is something quite special. It is different from the renal affection in scarlet fever. In congenital syphilis there was something involved which was not of the blood, although the blood has its share in it. There is the germ-cell and the sperm-cell which partake of the syphilitic character. These develop into the tissues themselves, and, just as in cancer, these tissues are the real seats of further change. As in cancer, the germ, or sperm, does give, as it were, a potentiality of development in one definite direction, which potentiality shows itself in the child at variable periods of life. It is so with the physiognomy, the colour of the hair, the decadence of tissues; the parent impresses the potentiality of these upon the offspring.

Dr. MOXON would first felicitate Sir W. Gull and himself upon the conversion of so distinguished an authority as Sir William Jenner to the view held by them as to the origin of cancer—viz., that it was a disease of the tissues, and not of the blood. Mr. Hutchinson had asked for some facts to support or supposed to support some special lines of his theory. Out of fifty-six inspections of cases of visceral syphilis he had found the average period of life to have been thirty-seven years. Now, this was a fact of considerable importance, for it bore on prognosis; and his own experience had led him to think that if an individual were once tainted with visceral syphilis his future was a short one.

He did not wish to obtrude any melancholy reflections upon the meeting, but he thought this fact worth bearing in mind. He would add, further, that this was an experience obtained from cases which were treated solely by iodide of potassium, and he would remind them of Sir James Paget's statement, with which, indeed, his own later experience concurred, that whereas in the tertiary stages of syphilis the iodide affords temporary relief, mercury is required to effect a permanent cure. If this be true, one of the old differences between secondary and tertiary syphilis would be dispelled—viz., that iodide of potassium was of benefit alone in the tertiary and mercury in the secondary stage. Mr. Hutchinson, in his address, speaking of the relations between secondary and tertiary syphilis, said:—"Whilst, however, their similarities are marked, so also to some extent are their differences. First, and as by far the most important of the differences between the stages, we place one which has been already mentioned—the tendency to general and symmetrical development in the secondary stage, and to local, restricted, and unsymmetrical formations in that of sequelæ." But, said Dr. Moxon, listen to what follows. "This, however, after all, is merely a question of abundance." By this reservation Mr. Hutchinson breaks down the distinctions between symmetrical and unsymmetrical lesions, and surrenders the whole position. Therefore Dr. Wilks was right in so interpreting Mr. Hutchinson, while he (the speaker) was surprised to find a high authority holding up Mr. Hutchinson as one in favour of symmetrical lesions indicating a blood disease. But what was the value of these arguments from symmetry as indicative of blood taint? Not much, he thought, for they embodied three fallacies, which he would endeavour to explain to the Society. In the first place, since a syphilitic rash is composed of some thousand blotches, it is unlikely that, attacking a symmetrical body, the blotches should not assume some kind of symmetry in their disposition. As a simple illustration of this, he might take an instance afforded him the other day. He was walking in the rain with a friend who had no umbrella, while he himself was provided with one. His friend's coat speedily became covered by symmetrically disposed spots of rain. This he (Dr. Moxon) pointed out, and showed his friend the radial symmetry of the rain-drops upon his umbrella. But the latter, not being a pathologist, and having no interest in abstruse questions of pathological philosophy, and moreover being doubtless a little angry at getting wet, replied "Stuff; it is only due to the arrangement of the ribs of the umbrella." This reply, simple as it was, had something in it, and applying the same view to symmetrical eruptions on the skin, we had an example of what he might style the *Fallacy of Universality*. But this does not apply to the symmetry of secondary manifestations in hereditary syphilis—e.g., keratitis, although why called secondary rather than tertiary he could not say, seeing that it sometimes did not appear till the thirty-fifth year. At that rate the individual would be dead before the tertiary symptoms arose. He was surprised that Mr. Hutchinson should have laid himself open to this simple objection—simply because of the symmetry in the keratitis. But why should it be otherwise than symmetrical? There was no more available cornea to be attacked, and if we could suppose an individual with five eyes, like a scorpion, or a few thousand, like a butterfly, all the corneal tissue (whether in five or a thousand pieces) would be affected. Because the cornea was in two pieces, instead of one, did not make it any different from the liver, which was in one piece, with regard to its affections; and could we conceive of an individual with one large eye, there would be a universal cornea, and a universal keratitis. This he would style the *Fallacy of Totality*. There remained one other fallacy, into which he found no less an authority than Sir Jas. Paget had fallen. Sir James had adduced, as instances of asymmetry in the late stages of blood diseases, suppuration of a rib, and inflammation of a vein following typhoid. (He entirely concurred with Sir William Jenner in stating that typhoid fever was never symmetrical in its manifestations.) But surely if there is no question of any other than *one* rib or *one* vein being implicated, we have no reason to suppose that two ribs should be or ever have been the seat of this sequela; and until Sir James Paget has shown reason why we should expect more than one rib or vein to be diseased, he must decline to accept this argument. With only one rib to deal with, surely the disease cannot be symmetrical. This he would take leave to style the *Fallacy of Unity*. Dismissing, then, the phenomena which came under these three fallacies — of universality, totality, and unity—he was struck with the remarkable frequency of symmetrical lesions in tertiary syphilis. There was at the present time, under the care of Mr. Clement Lucas, a woman with symmetrical ulceration of the ankles, another of knees; and he had seen a perfectly symmetrical palmar psoriasis. A more remarkable case still was that of a woman who died of cerebral syphilis, in whom the root of the vagus nerve on each side was found to be involved in a gummatous mass. The growth was perfectly symmetrical. In not one of these cases did either of the fallacies he had enumerated apply. In the Nomenclature of Diseases issued by the Royal College of Physicians syphilis was placed, not in Class A, among diseases of the blood, but in Class B. Turning to his own view, he would say that he did not in the least believe or accept the doctrine that syphilis is ever a thing specially of the blood. It could be transmitted by means of the blood, to be sure; but because one met a physician in a train would it be inferred that medicine was a property of the railway company? It was merely a matter of transit. He had just given examples of true symmetry in the later stages of syphilis, when the disease was said to be no longer one of the blood; and he must confess his surprise at hearing Sir James Paget adduce pityriasis versicolor as an example of symmetry. Surely it was no more a disease of the blood than trichiniasis was, and the latter was even more symmetrical. Mr. Hutchinson's great theory of the relations between the secondary and tertiary stages was summed up in his sentence on "the importance of all facts or arguments for or against the belief that the gummata of the tertiary stage are purely local, and result from renewed growth in formations left over from the exanthem stage." Mr. Hutchinson seemed not to have conceived any other view possible, but he (Dr. Moxon) would try to show that there was another explanation. To do this it must be granted, first, that syphilis is not an affection of the blood only; next, that all febrile disorders, when they strike virgin ground, rage there with comparatively great freedom—e.g., small-pox introduced for the first time among uncivilised races, the greater severity of fevers among persons of robust, full-blooded type, and the fact of the immunity afforded by an attack of fever, in which all the available soil was first attacked. He perfectly agreed in the comparison of syphilis with the specific fevers, a comparison which he thought Linnæus was the first to institute. If he did, it was certainly apt, for botany afforded good illustrations of prolonged development. He might instance that of a certain palm-tree, which takes four years to bear leaves, two more to blossom, and so on. In fact, syphilis is a fever diluted with time. A woman has syphilis, and bears a fœtus, which is also syphilitic. Years may go on, the woman may lose all traces of her syphilis, and yet she might still produce a syphilised progeny. Was not this because the fœtus was, as it were, a mass of new material, which, by reason of its not being syphilised, became infected? and this without any new manifestations on the part of the mother. The placenta is said to be always affected in cases of syphilitic abortion. But we have it, on the authority of Virchow, that it is not the seat of tertiary gummata; it is simply fattily degenerated. But then what other change can a placenta undergo than that of fatty degeneration? He would apply this view even to tertiary phenomena in adults. And to make his meaning clear, he would ask the Society to go back with him to long-buried knowledge. He remembered well, when reading in Quain and Sharpey the accounts of the histology of the skeleton, after going through all the points relating to the Haversian canals, lacunæ, canaliculi, &c., he came to the statement that Messrs. Tomes and De Morgan had discovered certain "Haversian spaces" which were excavations in the primary bone, which became afterwards filled up with solid bone. He had forgotten this till about three years ago, when Dr. Fagge asked him if a similar process were not conceivable in the soft tissues—viz., an absorption of old parts of which the places were filled up by new tissue. On this view might be explained instances of compensatory hypertrophy of organs or parts of organs, as, e.g., in a case of atrophy of the right lobe of the liver, in which the left lobe was very large indeed. Therefore he would hold that the products of tertiary syphilis were not merely regrowths in parts already

effete and saturated with the syphilitic virus, but in regions which, after the fashion of the Haversian spaces, or of compensating hypertrophies, were really new tissue, which had not yet had syphilis, and were therefore the seat of its manifestations. He was not fond of hypotheses; and really if Mr. Hutchinson would agree to say no more about his views on this point, well, he (Dr. Moxon) would undertake to say no more about his.

The PRESIDENT intimated that the discussion must close at the next meeting, which will be held on the 14th inst.

THE EFFECT OF PROLONGED MUSCULAR EXERCISE ON THE SYSTEM.

BY F. W. PAVY, M.D., F.R.S.

THE walk Mr. Weston is now accomplishing will complete the series of observations I have undertaken. The task he has in hand is to walk a distance of 500 miles in six consecutive days. In order that the information to be obtained may be made as complete as possible, observations have been conducted during the six days prior to the walk; they will be carried on during the six days of the walk, and extend for a short period afterwards. Thus, greatly additional data will be supplied for forming deductions hereafter upon tissue-waste in relation to muscular action. A calculation can be made of the amount of mechanical work each day performed, and from a knowledge of the ingesta, and the products of disintegration eliminated, an estimate can be formed of the source of the power manifested. In the former analyses—those particularly referring to the period of walking—the portion of the solid matter of the urine falling under the head of "other organic matters" forms an item of considerable significance. This may in part consist of other nitrogenous products of disintegration besides urea and uric acid, and with a view of deciding whether such is the case, and at the same time rendering the results more conclusive, the amount of nitrogen in each of the present series of observations is being determined by combustion analysis; but on account of the time involved in the operation, the publication of the figures must be delayed till a later period.

During the greater portion of the six-days period to which the subjoined report refers, Mr. Weston was staying at Brighton, and my friend Mr. Salxmann kindly undertook the requisite supervision. To him I am indebted for the particulars, which are from actual weighing, regarding the food consumed, and the other observations made, and for the daily despatch of the urine to my laboratory for analysis.

During the first two days Weston kept entirely to the house, and during the last four the amount of walking performed did not reach twenty miles. The results, therefore, well represent a state of comparative rest.

First twenty-four hours of the six-day period prior to the 500 miles walk (11 *p.m. Feb. 28th to* 11 *p.m. Feb. 29th*).—Amount of urine passed, 2271·7 c.c. (80 oz.); specific gravity, 1018·46; free acidity, reckoned as oxalic acid, ·63 gramme in 1000 c.c. (·276 grain in 1 oz.); amber colour, clear. Microscopic characters: Crystals of oxalate of lime. Composition in 1000 parts:—

Water		964·75
Solid residue (dried at 240° F.) ...		35·25
Incinerated residue...	12·19	
Organic constituents—		
Urea	17·18	
Uric acid	·56	
Other organic matters ...	5·32	23·06
Mineral constituents—		
Chlorine	4·37	
Sulphuric acid	1·32	
Phosphoric acid	·94	
Soda	2·99	
Potash	2·04	
Lime	·10	
Magnesia	·08	
Loss...	·35	12·19
		35·25

Total quantity of solids excreted during the twenty-four hours—

Urea	39·760 grammes	(613·11 grains)
Uric acid	1·295 „	(19·90 „)
Other organic matters	12·314 „	(189·94 „)
Chlorine	10·110 „	(115·99 „)
Sulphuric acid ...	3·049 „	(47·06 „)
Phosphoric acid ...	2·181 „	(33·64 „)
Soda...	6·929 „	(106·93 „)
Potash	4·726 „	(72·83 „)
Lime...	·257 „	(3·96 „)
Magnesia	·204 „	(3·15 „)

Food consumed: 12½ oz. cooked meat (chop, exclusive of bone, and steak); 2 eggs; 11¼ oz. bread; 3¼ oz. dry toast; ¾ oz. biscuit; 2 oz. currant cake; 7¾ oz. potatoes; 3¼ oz. butter; 1 oz. currant jam; 2 dried figs; 1 pint of coffee, and 1½ pints of tea, with milk and sugar.

Body-weight, without clothes, at 11 P.M. Feb. 28th, 9 st. 6 oz. Temperature in mouth, 100°.

Second twenty-four hours of the six-day period prior to the 500 miles walk (11 *p.m. Feb. 29th to* 11 *p.m. March 1st*).—Amount of urine passed, 1774·8 c.c. (62½ oz.); specific gravity, 1021·38; free acidity, reckoned as oxalic acid, ·63 gramme in 1000 c.c. (·276 grain in 1 oz.). Amber colour, slightly cloudy. Microscopic characters: Crystals of uric acid and oxalate of lime. Composition in 1000 parts:—

Water		961·23
Solid residue (dried at 240° F.) ...		38·77
Incinerated residue ...	13·02	
Organic constituents—		
Urea	22·51	
Uric acid	·84	
Other organic matters ...	2·40	25·75
Mineral constituents—		
Chlorine	5·68	
Sulphuric acid	1·43	
Phosphoric acid	1·52	
Soda	2·58	
Potash	1·38	
Lime	·13	
Magnesia	·17	
Loss	·13	13·02
		38·77

Total amount of solids excreted during the twenty-four hours:—

Urea	40·820 grammes	(629·85 grains)
Uric acid	1·526 „	23·60 „)
Other organic matters	4·330 „	(66·80 „)
Chlorine	10·293 „	(158·77 „)
Sulphuric acid ...	2·591 „	(39·96 „)
Phosphoric acid ...	2·751 „	(42·43 „)
Soda...	4·221 „	(65·11 „)
Potash	2·500 „	(38·57 „)
Lime...	·248 „	(3·86 „)
Magnesia	·323 „	(5·13 „)

Food consumed: 13¾ oz. cooked meat (chops, exclusive of bone, and steak); 2 eggs; 2 oz. Brand's concentrated beef-tea extract made into beef-tea; 5½ oz. of bread spread with butter; 10 oz. dry toast; 2¾ oz. cake; 1 oz. oatmeal in the form of gruel; 6 oz. potatoes; 6 oz. cabbage; 2¾ oz. black-currant jam; 3 dried figs (2 oz.); 1 pint of coffee, and 1½ pints of tea, with milk and sugar.

Body-weight, without clothes, at 11 P.M. Feb. 29th, 9 st. 6 oz. Temperature in mouth, 100°.

Third twenty-four hours of the six-day period prior to the 500 miles walk (11 *p.m. March 1st, to* 11 *p.m. March 2nd*).—Amount of urine passed, 993·9 c.c. (35 oz.); specific gravity, 1026·42; free acidity, reckoned as oxalic acid, 1·5 grammes in 1000 c.c. (·66 grain in 1 oz.); highly turbid from deposit of lithates. Microscopic characters: Amorphous lithate of soda. Composition in 1000 parts:—

Water		943·80
Solid residue (dried at 240° F.) ...		56·20
Incinerated residue ...	14·82	

Organic constituents:—			
Urea	31·17		
Uric acid	·49		
Other organic matters ...	9·72	——	41·38
Mineral constituents:—			
Chlorine	4·15		
Sulphuric acid	2·34		
Phosphoric acid	2·29		
Soda	3·41		
Potash	1·99		
Lime	·14		
Magnesia	·13		
Loss	·37	——	14·82
			56·20

Total quantity of solids excreted during the twenty-four hours.

Urea	31·804 grammes	(490·67 grains)
Uric acid	·507 „	(7·81 „)
Other organic matters	9·879 „	(152·43 „)
Chlorine	4·423 „	(68·20 „)
Sulphuric acid ...	2·385 „	(36·72 „)
Phosphoric acid ...	2·335 „	(35·95 „)
Soda	3·479 „	(53·69 „)
Potash	2·027 „	(31·32 „)
Lime	·149 „	(2·30 „)
Magnesia	·137 „	(2·11 „)

Food consumed: 15½ oz. cooked meat (chop, exclusive of bone, and roast mutton); 2 eggs; 2¾ oz. Brand's concentrated beef-tea extract made into beef-tea; 3½ oz. bread spread with butter; 5¾ oz. dry toast; 6½ oz. pudding; 1 oz. oatmeal in the form of gruel; 12 oz. potatoes and greens; 3 oz. black-currant jam; 3 dried figs (2 oz.); 1½ pt. of coffee and 1½ pt. of tea, with milk and sugar.

Body-weight, without clothes, at 11 P.M. March 1st, 8 st. 12 lb. Temperature in mouth, 99·5°.

Fourth twenty-four hours of the six-day period prior to the 500 miles walk (11 p.m. *March 2nd, to* 11 p.m. *March 3rd.*—Amount of urine passed 1987·8 c.c. (70 oz.); specific gravity, 1024·9. Clear, amber colour. Free acidity, scarcely appreciable. Microscopic characters: Crystals of oxalate of lime. Composition in 1000 parts:—

Water			960·27
Solid residue (dried at 240° F.) ...			39·73
Incinerated residue ...		14·42	
Organic constituents—			
Urea	24·03		
Uric acid	1·08		
Other organic matters ...	0·20	——	25·31
Mineral constituents—			
Chlorine	4·36		
Sulphuric acid	2·08		
Phosphoric acid	1·85		
Soda	3·61		
Potash	3·02		
Lime	·07		
Magnesia	·03		
			14·42
Less excess	·60		
			39·73

Total quantity of solids excreted during the twenty-four hours:—

Urea	48·955 grammes	(755·273 grains)
Uric acid	2·207 „	(33·95 „)
Other organic matters	·407	
Chlorine	8·890 „	(137·32 „)
Sulphuric acid ...	4·254 „	(64·80 „)
Phosphoric acid ...	3·780 „	(58·63 „)
Soda	7·355 „	(112·64 „)
Potash	6·361 „	(98·75 „)
Lime	·146 „	(2·20 „)
Magnesia	·060 „	(·91 „)

Food consumed: 19 oz. cooked meat (cold roast mutton and steak); 10 oz. fish (fried sole); 2 eggs; 9¾ oz. bread spread with butter; 6½ oz. dry toast; 5 oz. apple dumpling; 1 oz. oatmeal in the form of gruel; 10½ oz. potatoes; 1 pint of coffee, and 1½ pints of tea, with milk and sugar.

Body-weight, without clothes, at 11.30 P.M., March 2nd, 8 st. 13 lb. 6 oz. Temperature in mouth, 99°.

Fifth twenty four hours of the six-day period prior to the 500 miles walk (11 *p.m. March 3rd, to* 11 *p.m. March 4th.*)—Amount of urine passed, 1760·6 c.c. (62 oz.); specific gravity, 1020·14. Dark amber colour; free acidity scarcely appreciable. Microscopic characters: Crystals of oxalate of lime. Composition in 1000 parts:—

Water			961·93
Solid residue (dried at 240° F.) ...			38·07
Incinerated residue ...		8·61	
Organic constituents—			
Urea	25·48		
Uric acid	1·47		
Other organic matters	3·51	——	29·46
Mineral constituents—			
Chlorine	2·16		
Sulphuric acid ...	2·09		
Phosphoric acid ...	1·57		
Soda	1·54		
Potash	1·22		
Lime	·09		
Magnesia	·08		
			8·61
Less excess	·14		
			38·07

Total quantity of solids excreted during the twenty-four hours:—

Urea	45·760 grammes	(705·15 grains)
Uric acid	2·640 „	(40·73 „)
Other organic matters...	6·301 „	(97·21 „)
Chlorine	3·696 „	(56·94 „)
Sulphuric acid ...	3·766 „	(58·02 „)
Phosphoric acid ...	2·816 „	(43·36 „)
Soda	2·763 „	(42·59 „)
Potash	2·200 „	(33·95 „)
Lime	·176 „	(2·72 „)
Magnesia	·140 „	(2·16 „)

Food consumed: 9 oz. cooked meat (steak and cold roast mutton); 9½ oz. fish (boiled cod); 2 eggs; cheese, ¾ oz.; bread spread with butter, 11 oz.; dry toast, 2 oz.; oatmeal, 1 oz., in the form of gruel; haricot beans, 10 oz.; 3 figs (2½ oz.); coffee 2 pints, and tea ½ pint, with milk and sugar.

Body-weight, without clothes, at 11 P.M. March 3rd, 8 st. 12 lb. 14 oz. Temperature in mouth, 99°.

Sixth twenty-four hours of the six-day period prior to the 500 miles walk (11 *p.m. March 4th to* 11 *p.m. March 5th*).—Amount of urine passed, 2214·9 (78 oz.); specific gravity, 1021·34; amber colour, clear. Free acidity, reckoned as oxalic acid, 1·26 grammes in 1000 c.c. (·55 grain in 1 oz.). Microscopic characters: Large number of crystals of uric acid. Composition in 1000 parts:—

Water			962·33
Solid residue (dried at 240° F.) ...			37·67
Incinerated residue ...		12·29	
Organic constituents—			
Urea	23·49		
Uric acid	1·10		
Other organic matters ...	·79	——	25·38
Mineral constituents—			
Chlorine	3·60		
Sulphuric acid	1·72		
Phosphoric acid	1·22		
Soda	3·13		
Potash	2·35		
Lime	·08		
Magnesia	·06		
Loss	·13	——	12·29
			37·67

Total quantity of solids excreted during the twenty-four hours:—

Urea	52·052 grammes	(802·36 grains)
Uric acid	2·487 „	(38·38 „)
Other organic matters	1·785 „	(27·46 „)
Chlorine	7·974 „	(122·98 „)
Sulphuric acid ...	3·809 „	(58·78 „)

Phosphoric acid ...	2·768	„	(42·74	„	)
Soda	7·088	„	(109·24	„	)
Potash	5·316	„	(82·08	„	)
Lime	·199	„	(3·07	„	)
Magnesia	·155	„	(2·39	„	)

Food consumed: 21¼ oz. cooked meat (chop, exclusive of bone, and underdone roast beef); 2 eggs; jelly ½ pint; bread 8 oz.; dried toast 4 oz.; 4 biscuits (Huntley and Palmer's); potatoes 12 oz.; haricot beans 8½ oz.; butter 1½ oz.; 2 dozen grapes; 1 dozen prunes; coffee, with milk and sugar.

Body-weight, without clothes, at midnight, March 4th, 9 st. 2 lb. 8 oz.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE PORT OF LONDON.

OUR interest in these reports increases as our attention becomes more and more drawn to the importance of the subjects on which they treat. The present report which we now notice is the fifth issued by Dr. Harry Leach in his capacity of Medical Officer of Health to the Port of London; it treats of the general routine sanitary work that has been done on the river during the past half year. Under this head we regret to find, in spite of written requests and warnings, a great many closet and other objectionable outfalls into the river yet exist. For those which are still outside the metropolitan main-drainage system there is some excuse; but for the closet outfalls that are to be found in active operation between London-bridge and Blackwall, there is no reasonable plea why they should still be permitted to pollute the river. The nuisances arising from the manure, glue, and other manufactories on the banks of the river, between Woolwich and Greenwich, are alluded to, and we hope the Port Sanitary Authorities, though it is without their district, will be induced to strengthen the hands of the South-Eastern Sanitary Association by proceeding against them. No examination of ships has been made at Gravesend, inasmuch as epidemic cholera has not existed in Europe during the past half-year. Dr. Leach has directed attention to the importance of obtaining accurate statistical particulars of disease occurring among sailors, as showing the expediency of adopting for the mercantile marine service a modified, but in certain cases a compulsory, medical examination of the men about to be employed. Observation shows that very few ships ever sail from home or a colonial port with sound and healthy crews, consequently many men knock up during the voyage and render the ship short-handed, to the detriment of the owners, and often at great cost to the country, as the Board of Trade has frequently to send the invalids home at the expense of the ratepayers. This matter has been definitely treated in the new Merchant Shipping Bill, and it is to be hoped that, if the medical examinations are conducted with judgment, the sanitary condition of our sailors will be materially improved, and that the danger arising from shipwreck in consequence of being short-handed will be diminished. The epidemics that have occurred on board certain school-ships in the Thames have led Dr. Leach closely to examine the sanitary arrangements on board these vessels, and to give some recommendations for their improvement. For this purpose the following ships have been visited and inspected:—The *Akbar*, Liverpool; the *Arethusa*, Greenhithe; the *Chichester*, Greenhithe; the *Clarence*, Liverpool; the *Cornwall*, Gravesend; the *Cumberland*, Glasgow; the *Formidable*, Bristol; the *Gibraltar*, Belfast; the *Goliath*, Grays; the *Havannah*, Cardiff; the *Indefatigable*, Liverpool; the *Mars*, Dundee; the *Southampton*, Hull; the *Wellesley*, Shields; the *Worcester*, Greenhithe; the *Warspite*, Charlton; and the *Conway*, Liverpool. Diagrams showing the arrangements of the dormitories, offices, &c., on board these ships are given in each case, and afford subject for much interesting study. The outbreak of enteric fever on board the *Cornwall* is detailed. As this has already been fully noticed in our columns, we need not further allude to it here. In Appendix F. we have a list of samples of drinking water obtained from twelve ships during the half-year; of these 4 are reported good, 6 were doubtful, 1 bad, and 1 very bad. We need not point out the value of such examinations, since the danger to the crews of shipping bad water from polluted sources is so obvious. By ascertaining the source whence a ship has obtained her water-supply, the medical officer in time gathers sufficient data to enable him to point out to masters of vessels where at different ports they may look for a pure supply, or warn them against a bad. We cannot close this notice of Dr. Leach's report without expressing a regret that ill-health should have caused his temporary withdrawal from his duties. We sincerely hope to see him soon back at his post with recruited health and renewed energy, to continue those labours in a branch of sanitary science which he has made so peculiarly his own.

ICE-MAKING.

WE had an opportunity last week of inspecting, on the premises of Messrs. Phillips, Upper Ground-street, Blackfriars, the working of what is known as Reece's Patent Ice Machine, but in the construction of which considerable improvement has been effected since the originator's death. The refrigerating agent employed is ammonia, and the cold is produced by the alternate self-compression of ammoniacal gas into a liquid, and its expansion into a gaseous form. The gas is driven from its solution in water by the heat of an ordinary steam boiler, and the requisite compression of the gas is obtained by means of its own accumulation. This process appears to have many advantages over the other process, not the least of which is economy. The machine, which we have not sufficient space to describe at length, while extremely ingenious, possesses the very great merit of simplicity, and can easily be worked by an unskilled attendant. Its action is continuous, and the only motive power required is that for working two small pumps. We could not detect the slightest odour of ammonia during the process, which shows that there is little or no loss of the agent. A Reece's machine will produce ten tons of clear ice in twenty-four hours, at a cost of 5*s.* a ton. It must prove eminently serviceable in such undertakings as the importation of fresh meat on a large scale, while its advantages to promoters of real-ice rinks, brewers, and others are manifest.

THE EDUCATION AND REGISTRATION OF MIDWIVES.

ON Thursday last a deputation, consisting of the Honorary President, President, and Council of the Obstetrical Society and representatives of the British Medical Association, the Social Science Association, and the Society for the Protection of Infant Life, waited on the Lord President of the Council and the President of the Local Government Board with reference to the above subject. Dr. Priestley, President of the Obstetrical Society, stated that there were in England and Wales 7000 women engaged as midwives, and that 60 per cent. of women confined in country towns and villages were attended by unqualified women, but that in the West end of London only 2 per cent. were so attended. These facts were enough to prove the importance of the subject, and to point out the necessity of providing for the education of women engaged in such practice. In all Continental countries provision was made for this, and the United States of America and England were alone in neglecting it. The deputation had nothing to do with the medical education of women; their object was simply to obtain skilled attendance for the poor during their confinement. Dr. Priestley concluded by directing the attention of the Lord President to some suggestions drawn up by the Society, and which have already been published.

The Duke of Richmond expressed the pleasure he felt in meeting the deputation, and felt that the object of it was one of great importance, inasmuch as it affects the health and lives of many mothers and children. His Grace did not wish to throw cold water on the matter, but he would say that, great as was the importance of the subject, the difficulties attending legislation upon it were not less.

THE LANCET.

LONDON: SATURDAY, MARCH 11, 1876.

MR. GATHORNE HARDY has laid the official axe to the roots of one departmental tree, and no mistake, for his scheme for reorganising the Medical Department is, on the face of it, a very bold and revolutionary measure. We do not yet know the details of his plan, but there can be no room for doubt as to the principles on which it will be based. To begin with, the War Minister, on Thursday night, may be said to have dug the official grave in which the present department, with its traditions, is to be interred. The lines on which it has been constructed are to be swept away. To compare great things with small, the existing service, like the Irish Church, has come to be regarded as representing an effete system, and, like the barren fig-tree of the parable, it is to be cut down in order that it may no longer cumber the ground. But this time the official axe is wielded by a Tory Minister, and not by Mr. GLADSTONE, who has retired to exercise his skill as a woodman in private life. From the general tenor of the numerous communications that have reached us, the War Minister's utterances seem to have given rise to a deep sense of disappointment among the members of the department—that much is clear. Mr. HARDY was unusually emphatic in the declaration of his intentions; he intimated very clearly and distinctly that they were the result of long and deliberate consideration, and we may, therefore, regard them as final, as far as he is concerned. The experiment about to be tried is of the most radical character, and should it succeed, there cannot be a doubt, we imagine, that the same principles will be extended to other, and possibly to all, of the public medical services. The prominent points on which Mr. HARDY dwelt were—(1) The old regimental, as compared with the general or departmental, system of medical organisation. (2) The scheme for surmounting the two great difficulties with which the Government and the Medical Service have to contend—the former with the want of candidates, and the latter with the want of promotion.

We have always held that what is best for the Army as a whole—for the State, the soldier, and the service—is best for the Medical Service itself, for it is by this standard and on this ground that every scheme must, after all, be tried. We have no hesitation in saying that if the Army Medical Service has become very unpopular—and about this there can be no doubt,—the authorities have themselves to thank for it. From 1858 to the present time there has been a constant struggle going on between the medical officers and the authorities. The advantages and privileges attaching to relative rank, guaranteed by Royal Warrant, have been dissipated away, and in some cases plainly abrogated, by War Office circulars and official memoranda, until a spirit of distrust and discontent has become the prevailing feeling of the department. What yesterday happened in the case of forage might to-morrow, it was felt, be applied to the case of pensions. Then, again, let the change of system have been good, bad, or indifferent, the fact remains that Lord CARDWELL's ruling was of a retrospective character; regimental medical officers were, at one stroke of the pen, dispossessed of their appointments, and it was impossible for them to shut their eyes to the very different measure dealt out to the combatant branches of the service on the abolition of purchase; the contrast between the extremely generous treatment accorded to the one, in the shape of compensation, which was denied to the other, was too glaring to escape observation. Schemes for expediting promotion, too, were devised and applied to the other scientific branches of the service. And so things went on accumulating until the present War Minister found himself in a maze of difficulties from which he probably saw no escape. This is a view of the matter which has never been honestly and fairly laid before the House of Commons; but Mr. HARDY has now, with the approval, apparently, of the Opposition, cut himself free from difficulties brought about by the Government of this country, past and present. The development of unpopularity may be slow and gradual, but its effects remain long after the causes have been removed, as Mr. WARD HUNT finds to his cost in the case of the Naval Medical Service. Mr. HARDY has most emphatically pronounced his opinion that to return to the regimental system is simply impossible, and he gave his reasons for stating why such a return is undesirable, even were it possible. It is to be regretted that he did not long ago display the firmness he exhibited last week. Had he done so, and redressed the more pressing grievances of the department, there would have been no necessity to have recourse to his present expedient of short service. And this brings us to the great novelty, the keystone, of the scheme. The service is to be constituted of two sections—a subordinate portion, forming the great bulk of the department, composed of young medical men serving for a limited period at a relatively higher rate of pay, and with a bonus at the end of the term; and an upper and less numerous portion, constituting those on permanent or continuous service, which is to go on for pension, and be fed by and drawn from the former class by selection. This section will be charged more especially with the administrative and higher professional functions of the service. The other class, after passing a severe competitive examination on entrance, will be entitled to £250 per annum, *plus allowances*, and £1000 on completion of their ten years' service. If selected, however, to remain, they will pass into the upper or continuous service, from which they will be compelled to retire at sixty years of age if in the administrative ranks, or, if not, as we understand it, at fifty-five years of age as at present. Mr. HARDY instituted a parallel between the Medical Service and a bottle. He said the bottle is a good deal larger than the neck, and as you cannot force all the contents into the neck at once, you must draw some off below, in order to get a fair proportion above. In that way the most expensive retirements would be diminished, while, the number of those entitled to these and other good things being reduced, the medical officers' chances of securing them would be vastly increased and the character of the service itself improved.

That the scheme exhibits boldness and originality in de-

sign, as well as plausibility, cannot be gainsaid; but the question arises whether the experiment of short service will succeed in attracting men from the medical schools so as to relieve the Government of its difficulties. Several things strike us in regard to it. In the first place, are young medical men likely to place implicit confidence in the promises of Government? They may feel that it would be as well for Mr. HARDY to be just to the men he has got before being generous to those he hopes to get. Will £250 per annum for ten of the best, although the least lucrative, years of a man's life suffice to maintain the requisite flow of candidates? It is not in human nature to be contented with the same rate of pay for ten years; and it seems to us that if the Government had given £300 with an increase, or, at any rate, £300, per annum, at the end of five years' service, the chance of attracting a larger quantity, and certainly a better quality, of candidates would have been greatly increased. Is not ten years too long a service for a professional man who intends entering on civil practice? Will he not find himself outstripped by those who have "remained at home at ease," and resisted the Government bait? And is ten years of army life likely to prove a good training, on professional and other grounds, for subsequent civil practice?

As to Mr. HARDY getting the flower of the medical schools, we are utterly incredulous. The public services will never attract such men in any numbers. The unsettled life and uninteresting routine work will always prove irksome and distasteful to them, and Mr. HARDY may be well satisfied if, instead of getting the flower, he succeeds in excluding the weeds. We imagine that at first candidates will be forthcoming; but in the matter of "allowances" we see rocks ahead. If Mr. HARDY be sincere in wishing to avoid these hindrances, he will instruct the War Office to publish in the most precise, clear, and unambiguous language possible, and in some authoritative form, the exact terms he has to offer, so as to ensure that young medical men may know what they are to get, and, what is more, that they may be certain of getting it. There are three classes of students in most medical schools. The best men look forward to holding hospital appointments, and are ambitious of professional or scientific distinction; these will not enter the public services. Others are being educated to succeed to the practices of relatives or connexions; some, but not many, of these may temporarily enter the service; and there is a third class, with whom the bait will take (with their parents especially), whose prospects at the completion of their professional education are uncertain and obscure. We must wait for the new Warrant to discover what is to be the relative rank assigned to the short-service men, and the way in which the question of Indian pay and allowances is to be met in their case. It is idle to talk of what may occur by 1912. By that time "bloated armaments" may have burst up, or we may have conscription, and the present Tory Government will probably have passed into oblivion, and possibly even a descendant of ODGER or KENEALY may then be in the ascendant, though we confidently hope not.

As regards what may be termed the old medical service, this must be regarded in two aspects—its present and future condition. The military medical is no longer to be counted a separate life-long service, requiring special training. Whilst the medical profession is being split up, in this our day, into as many specialists as there are organs in the body, Government is returning to the usages of a time when there was not that gulf between the civil and military or naval medical element that now exists. The present medical service is, apparently, to be supplanted in process of time by another. We know nothing as yet of what Mr. HARDY has done to redress the grievances of medical officers. He has said nothing on this head, and we must wait for the new Warrant. We cordially agree with Mr. HARDY, however, in what he said about compulsory retirement at sixty. A service without hope is without emulation, and consequently stagnant; and it is but just to recognise that in this respect the War Minister's ruling will be of signal benefit to the department.

As regards promotion, the principle of selection is to be *the* principle adopted in future. Theoretically, it is unquestionably a sound one for a special service like that of the medical department; practically, its application must be attended with great difficulties. The question is one in which the disadvantages of senile dulness or incompetence are balanced against the abuses of favouritism and servility; but let the head of the department apply the principle with the utmost integrity of purpose for the good of the service, and for that object only, and he will still be lucky indeed if he escape censure, as he certainly will not escape criticism.

A VALUABLE contribution to our knowledge upon the formation of ova in the fœtal ovary has been made recently by Dr. FOULIS, in a paper published in the Transactions of the Royal Society of Edinburgh. The importance of the paper is considerably increased by the fact that it contains on one or two points rectifications of the statements of WALDEYER and others, which have hitherto been held to be correct. One of those statements concerns the nature of the ovary itself. Dr. FOULIS conclusively proves that it has no right to be considered in any sense a tubular gland, and he shows clearly how the formation of the Graafian follicles takes place without any such process as WALDEYER imagined. In this place it will suffice to follow closely upon the descriptions of Dr. FOULIS, whose observations were made upon the ovaries of the embryos of the cat, dog, rabbit, and man. About the earlier formation of these organs there is now no dispute. Embryologists are agreed that on the median side of the Wolffian body, the investing epithelium, continuous with the general epithelial lining of the pleuro-peritoneal cavity, becomes thickened; its cells here assume a columnar shape, they proliferate freely, and thus form a raised mass of "germ-epithelium." From this layer the ova are subsequently developed, whilst the vascular stroma of the organ is formed by an outgrowth from the side of the Wolffian body. The activity of the processes of growth may be conceived by the fact that at birth the ovary contains no fewer than 35,000 ova. The production of these takes place as follows:—The germ-epithelial corpuscles, composed of nucleated masses of protoplasm more or less columnar in shape, rapidly proliferate. Then some of them become spherical, their nucleus swells up, assumes a definite lining membrane, and contains a well-marked nucleolus. Each such cell is a "primordial ovum," and in the human fœtal

ovary of seven months and a half there may be seen germ-epithelial corpuscles in all stages of development into these primordial ova. The nucleus of the cell becomes the germinal vesicle, and the nucleolus the germinal spot. Meanwhile the delicate spindle-celled stroma grows into the germ-epithelial layer, here and there separating several of these corpuscles, of which others are produced on the surface to make up for their loss. The groups of corpuscles thus isolated are destined to become groups and clusters of ova, for each of the germ-epithelial cells within the investment swells up and develops into a primordial ovum. But these egg-clusters do not long remain in this compacted condition; the stromal elements enter and isolate each primordial ovum just as the solitary primordial ova found in the germinal layer are isolated. The adhesion between the spindle-cells and the primordial ovum they invest is very intimate. The rapid proliferation of the germ-epithelial cells gives an irregularity to the surface of the young ovary so as to produce the appearance of depressions, or even of tubes; but Dr. FOULIS is unable to trace the formation of any tubes of involved epithelium with which the egg-clusters are attached.

Each primordial ovum, with its thin investment of embryonic connective tissue, constitutes a Graafian follicle. Here, again, Dr. FOULIS has thrown much light upon an obscure subject. The mode of formation of the Graafian follicle has been frequently described, and the most generally received explanation is, that the follicle, with its "membrana granulosa" and fluid contents, is derived, like the contained ovum, from the germ-epithelial layer—a view consistent with the tubular doctrine of the structure of the ovary. According to Dr. FOULIS, however (who has never been able to see this tubular structure), the membrana granulosa of the follicle is formed by modifications of the spindle-cell connective tissue composing the vascular stroma; and he has been enabled to trace all stages in the process by which the cells arranged nearest to the ovum become so converted. As the ovum itself increases in size, the layers of corpuscles forming the membrana granulosa increase. Some of them remain surrounding the ovum; but a large number disintegrate, and contribute by their dissolution to form the fluid contents of the follicle; while, lastly, one layer remains lining the whole follicle. This layer has received the name of "follicular epithelium"—an appellation which cannot strictly be applied to it, since it is developed, not from pre-existing epithelial elements, but from connective-tissue cells. We have already seen how the ovum is originally formed. It is completed finally by the thick translucent striated zona surrounding the yelk. This zona pellucida is, according to Dr. FOULIS, a production, not of the follicular epithelium, but of the yelk itself. It consists merely in the hardening of the outer layers of the yelk. To appreciate the distinction thus raised, it is necessary to consider the origin of the yelk itself. This, according to PFLUGER, WALDEYER, and others, is, even in the mammal, in the mature ovum, composed of two parts—the central portion, or principal yelk, being that which immediately surrounds the germinal vesicle. This is, of course, the product of the protoplasmic contents of the primordial or germ-epithelial cell. But to this, according to these authors, there is added at a subsequent stage a layer of yelk, called secondary, investing the primary yelk, and in close contact with the zona pellucida. This, they maintain, is the product of the follicular epithelium, and hence, from their point of view, it would be equally consistent to say that the zona pellucida was formed from the transformation of the outer yelk-layer or directly from the follicular epithelium. But on Dr. FOULIS's view this double source for the yelk in the mature ovum is unneeded, as is shown by excluding the follicular epithelium from any share in the production of the zona pellucida. It may, however, be assumed to take place in part from the conversion of the stromal cells; but this does not seem to be Dr. FOULIS's opinion.

It is, then, upon the points as to the non-existence of tubular structures in which the Graafian follicles are formed, the important part played by the stromal tissue in the formation of these follicles, and the mode of origin of the zona pellucida, that the conclusions at which Dr. FOULIS has arrived differ so materially from those of the German histologists. His paper is so carefully written, and every step in the developmental process is so fully illustrated, that there seems good ground for believing in the accuracy of the conclusions at which he has arrived.

THE agitation for the higher medical education of women presents many unmistakable signs of an approaching maturity. Already the question is passing beyond the control of the examining boards and medical corporations, and is rapidly assuming more and more a political character. The fact becomes every day more manifest that the importunity and the earnestness of the medical women advocates will ultimately prevail. The deputation which the Duke of RICHMOND and GORDON received last week had evidently realised this. One member of the deputation even went so far as to allege that the Government could now deal with the question of the registration of properly educated medical women with less difficulty than formerly, because the prejudices of medical men were gradually diminishing, and because a majority of the medical journals were now either in favour of medical women or were at least neutral. On what facts this statement is based we know not, nor can we conjecture what medical journals are comprised in the majority. A feeling has, it is true, been gradually engendered that anything would be preferable to the worrying and harassing interference of the few women who are so impatient to distinguish themselves as medical practitioners. For ourselves, we have always maintained that female medical practitioners are neither necessary nor desirable, and to this opinion we still adhere. But, on the other hand, we should not be sorry to see the obstacles to the registration of properly qualified women removed, if by that means the discussion on the medical rights of women could be for ever got rid of. Unfortunately the matter cannot be so easily dismissed. To remodel laws or to alter regulations that have for years received the sanction of all intelligent and well-informed persons, without a sounder justification than the gratification of the whim or the caprice of a few female enthusiasts, is neither prudent nor reasonable. Many of the women who are now aspiring to medical practice have not hesitated to declare that it is neither their intention nor desire, if admitted into the pro-

fession, to restrict themselves to the study and treatment of the diseases peculiar to their own sex, but that, in the words of one of their warmest admirers, "they desire an education complete in all its branches and a diploma qualifying them for general practice." In this they are doubtless to a great extent right, but it will, we venture to say, be many years before the Government of the country, the members of the medical profession, and the public generally, will be educated up to the opinion that women should be made competent to attend any man who might be induced to seek the services of a female medical practitioner. If those women who are seeking, at an extravagant cost of time and money, to enter the medical profession, were content to work in the only department of medical practice which is properly open to them—namely, as midwives and nurses,—no objections could fairly be raised, provided that they always practised under the supervision of qualified medical practitioners. The King and Queen's College of Physicians in Ireland two years ago adopted a bye-law which exactly meets such a contingency. A licence is granted to those females who have complied with the necessary regulations to practise as midwives and nurse-tenders. The regulations are that the candidate shall be not less than twenty-one years of age and of good moral character; the passing of a preliminary examination in reading, writing, and arithmetic; and six months' attendance on systematic lectures on midwifery, and not less than six months' attendance on bedside instruction in a lying-in hospital or maternity recognised by the College; the subject of examination being Midwifery (not including operations) and Nurse-tending. But this is a very different affair from what the female medical students in London are striving after. Their ambition is to be placed upon the Medical Register, and then to please themselves what branches of medical practice they shall engage in. But this is exactly the matter in dispute between them and those who differ from them.

Annotations.

"Ne quid nimis."

THE ELEMENT OF TIME IN CHRONIC DISEASES.

THE element of time in diseased processes is one that deserves yet more attention than has been given to it by physicians. It has not been unconsidered in certain classes of disease. From the days of Hippocrates downwards, certain diseases have been considered subject to laws of time, and not the least interesting part of recent additions to our knowledge is that which shows that diseases neither specific nor infectious are subject to such laws. In pneumonia, for example, a marked tendency to crisis was pointed out by Laennec, and has been noticed by other careful observers. So with some other acute diseases. But there remains the large class of chronic diseases in regard to which we know comparatively little with any certainty as to their relation to time, save that they do not seem bound by any definite rules, and that they extend over vague and various periods. The chief aim of medicine in regard to such diseased processes, where they cannot be entirely removed, is so to attenuate their rate of progress that it shall not seriously affect the duration of life or even its comfort. A very suggestive and interesting case was detailed by Dr. I. Burney Yeo, in THE LANCET of January 29th. The case was one of cancer of the stomach, in which a period of no less than seventeen years elapsed between the first indications of the disease and the fatal ending of it; there were considerable intervals of comparative health, which led very eminent physicians to doubt the cancerous character of the case. Suitable food, as animal jellies and fluids, such as could be absorbed by the stomach itself, with appropriate medicines, almost to the last greatly alleviated the painful symptoms of the disease. At the last, at the age of sixty-two, death was occasioned by the patient indiscreetly gratifying an unusual appetite, and taking first "a rather copious breakfast and afterwards a good dinner." Perforation took place, and subsequent peritonitis, but for which it seems probable that life would have been still further prolonged. It is not our design here to discuss the means by which the rate of progress of cancer may be most effectually extenuated. At a comparatively early period in this case a sound but a very depressing diagnosis had been made and expressed by a most competent physician. Perhaps few things tend more to intensify the rate of progress of cancer than a medical diagnosis of its actual existence: a fact which raises a most important question in medical ethics—how far it is right to express such an opinion to a patient where the question is not specifically raised and urged by himself. This point apart, we have here a striking instance of a cancer taking seventeen years to kill; and the question arises, If a cancerous process can be so retarded, why should it not be still more retarded? We see no reason why such retardation should not take place. One of the recent changes in medical faith is belief in the possibility of indefinitely retarding diseased processes of the tubercular order. Dr. Dickinson tells us that the diabetic process may be extended over fifteen years. But why fifteen? except for the fact that cases have not been watched over a longer period. Such facts are very important. Morbid processes which occupy so large a part of the natural period of human existence remind us of Pope's words—

"That long disease, my life;"

and make us hope that, by some "gentle arts," they may be so attenuated as to take the form of age rather than disease. We should be greatly indebted to readers for information of well-authenticated instances of the abeyance of ascertained organic disease, or of the remedies, diet, or general circumstances which tended to their abeyance. It is evident that chronic states of disease are greatly capable of being so influenced. We all know of lives that in a medical respect are damaged, but which are amongst the best lives we know, and even the longest. We have to be to them what Arbuthnot was to Pope, and which Pope so happily acknowledged—

"Friend to my life! which did not you prolong,
The world had wanted many an idle song."

HUMAN ANATOMY AT CAMBRIDGE.

WE are glad to find that the Senate of the University of Cambridge have confirmed the Report of the Board of Natural Sciences Studies, and have given a more prominent and definite place to human anatomy in the examination of the Natural Sciences Tripos. Not merely is this a recognition of the fact that human anatomy deserves to be regarded as a science, but it is, we hope, also an assurance that it will be so taught in Cambridge. As the special study of one member of the animal kingdom, and that the one which we are in the habit of regarding as the highest, we can see no good reason for excluding it from the higher studies of the University, and we apprehend that it is

capable of being made as good a basis for mental training as any other branch of natural science, combining as it does accuracy of detail with ample scope for reflections associated with the teleological, morphological, and developmental relations of the several parts. For the ordinary student, it may be, the practical bearings of anatomy are of paramount importance, especially with an examination test at the College of Surgeons before his eyes. Even in his case we could wish that the knowledge of anatomy were not quite of so routine, parrot-like, matter of fact, dull, and therefore easily forgotten a character as it has become under the present system of manuals and examinations. But in our Universities certainly it is to be desired that a higher view should prevail. In them, assuredly, the human body should not be studied as a cram subject for examinations, or with reference simply to practical bearings, but should be approached from higher and more philosophical ground as the perfection of mechanism, and as the representative and expression of that which is best and noblest in the physical world—as a subject worthy of the absorbing attention of the best minds of Cambridge. Unless, indeed, our Universities are to give this better tone to the study, we see little use in its being prosecuted in them. Rather would it be mischievous, as leading to the misapprehension that it was not worthy or fitted to be raised to the level of the other studies of these places. From the reproach of excluding human anatomy from the pale of science, Cambridge has happily relieved itself, and it has at the same time opened to medical students an avenue to its Honour classes by a careful and philosophic pursuit of that very branch of their science with which it behoves them to make themselves most thoroughly acquainted. We shall watch this new step with interest, and with the hope that its results at Cambridge may tend to elevate the study of anatomy, and so of other professional subjects, there and elsewhere.

UPPINGHAM SCHOOL.

SINCE our last report two fresh cases of enteric fever have occurred at Uppingham School, one in Mr. Mullins's house and one in Mr. Christian's house, both houses having suffered in the previous outbreak. The school authorities are doing all in their power to prevent the spread of the disease. Dr. Paley, of Peterborough, has been over to advise, and the head master has sent for Dr. Lionel Beale. The school authorities deserve all the sympathy and assistance that can be given under the present circumstances. It is due to no neglect on their part that the disease has made its reappearance. Although in the first outbreak we had to take them to task for their apathy at the outset of the disease, yet as soon as they became aware of the real nature of the illness they became anxious to adopt measures calculated to check its progress and to perfect their sanitary arrangements. For this purpose they requested the Local Government Board to send down an inspector to advise them what to do. Mr. Robert Rawlinson was deputed to make the necessary inquiries by the Board. Mr. Rawlinson ultimately reported on the school engineer's report, and stated that he was satisfied that the schools would be in as complete and satisfactory a state as the best modern sanitary science could put them. Cesspools had been abolished, drains had been relaid and ventilated, closets, sinks, and gulleys had also been improved, renewed, and fully ventilated. Mr. Rawlinson concluded his report by stating that the trustees and masters had improved the sewerage, drainage, ventilation, and water-supply of the several schools in the best practicable manner. On the strength of such an undoubtedly favourable report, it was felt that no opposition could be raised to the return of the boys, and the school accordingly reassembled at the end of January. It is only fair to state that Mr. Haviland, the medical officer of health for Uppingham, at the time protested in our columns against a premature return of the boys, as, in his opinion, it was not safe for them to do so. We believe that Mr. Rawlinson was fully aware of Mr. Haviland's doubts on the subject, and therefore he assumed a great responsibility in speaking so decidedly with respect to the sanitary improvements, whilst the weight of his opinion as a Government inspector made it difficult to gainsay him. The school authorities are therefore greatly to be pitied; they asked advice, and they spent their money freely in improvements, and now they have a second visitation, which, we fear, must again cause them severe pecuniary loss. That that loss, however, will only be temporary we firmly believe, since Uppingham has earned a great reputation for itself among public schools; and when by efficient measures the present epidemic is stamped out, and means taken to prevent its recurrence, the school will return to its old prosperity.

On going to press we learn that the school has been broken up, and all the boys sent home.

THE LATE DR. BEGBIE.

WE are indebted to valued correspondents for interesting details of the career of Dr. Warburton Begbie, and of the disease which ended his valuable life. His school education was very good; first under Dr. Cowan, at the Grange Academy, Sunderland, and afterwards at the Academy, Edinburgh. His medical studies were carried on first at Edinburgh, where he graduated in 1847. Thereafter two or three years were spent in Paris, Vienna, and Italy. In 1852 he commenced practice in Edinburgh as a family physician. In 1854 he was elected as one of the physicians of the Royal Infirmary. And his deportment in this position seems to have been the basis of his reputation as a teacher and a physician. This important part of his work is thus described by one who first came to know Begbie as a teacher and then as a wise and successful adviser, and ever afterwards as a kind friend.

"It is now a little more than twenty years since he was appointed one of the physicians to the Edinburgh Infirmary, and during the ten years that he held the office he made his reputation. The clinical teaching of the physicians used then to consist of lectures twice a week by each in turn, and visits to the wards on other days. Dr. Begbie's clinical lectures were characterised chiefly by the great care with which they were prepared, and by the extensive knowledge from ancient and modern, foreign and home sources which was brought to bear on each subject; for they did not possess striking eloquence or the sparkle of illustrative anecdote. In the wards his habit was to seat himself by the bedside and elicit the history and all information about the present condition of the case; then make a physical examination, which he caused some of his students to repeat, explaining what was heard and what it meant; and, lastly, so far as could be done in the presence of the patient, he discussed the case, pointing out wherein it was in accord with, and wherein it diverged from, the usual course, telling his own experience of the malady, the opinions of authorities, and how far he agreed with or differed from them. In this work more than elsewhere it was seen how he was a great physician; his extensive erudition, his accurate memory, his complete mastery of all the physical aids to diagnosis, were combined with the power of grasping each case as a whole, and a fine sagacity in reading the import of every sign or symptom. He was, moreover, a man who looked further into a case than signs or symptoms revealed, and who considered a patient as more than merely an object to be percussed,

auscultated, and perhaps dosed. He regarded each one as a sentient fellow-creature, with a mind as well as a body, with whose sufferings he could sympathise. No one could show more tender pity, take greater pleasure in telling a patient that he was doing well, or more considerately communicate bad news than he would do. At the same time, when the effects of vice came under his notice, he never hesitated to warn or reprove, as he might think most likely to be attended with good results."

In his illness he was assiduously attended to by his friends Drs. Haldane, Sanders, and Muirhead, but all their skill was unavailing, and he died on Friday, the 25th ult. The symptoms were indicative of weakness and dilatation of the heart. From the first there was total loss of appetite, soon amounting to absolute loathing of food; weak and irregular action of the heart. On one occasion, while on his deathbed, Dr. Begbie expressed a wish that his body should be examined, pointing to the region of his heart, and saying, 'For my children's sake.' Accordingly, on the day after his death his body was examined by Dr. Wyllie, pathologist to the Royal Infirmary, in the presence of the medical attendants. The heart was found much hypertrophied, weighing more than twenty ounces, but the main lesion was dilatation. The walls of the auricles were so thin as to be translucent, and the tricuspid and mitral orifices permitted the passage of eight and seven fingers respectively. The coronary arteries were a little atheromatous, and on microscopical examination the muscular fibres of the heart, though not distinctly fatty, had a decidedly granular appearance.

REGISTERED LODGING-HOUSES AND THEIR SANITARY CONDITION.

THE recent remarkable outbreak of typhus and enteric fever in Whitechapel is most clearly traced by Mr. John Liddle, the local medical officer of health, in his last quarterly return, to the grossly defective sanitary condition of a number of registered common lodging-houses in the north portion of his district, more especially of some in Flower and Dean-street. The importance of this discovery, and the magnitude of the danger to the health of London involved in the neglect disclosed, should not be lost sight of. Mr. Liddle says, "I have directed the attention of the Chief Commissioner of Police to the overcrowding, and to the defective sanitary condition" of these lodging-houses, and expresses a belief that the defects pointed out will be remedied. What we are interested in knowing, however, is how it was possible for such overcrowding and sanitary neglect to exist in *registered* lodging-houses, which are liable to constant inspection. The medical officer of health appears to have been informed of the outbreak of fever in Whitechapel by the Managers of the District Asylums Board in consequence of the large number of fever patients admitted to their fever hospitals. The fever was traced through the workhouse to these lodging-houses, and this led to their inspection. It was found that thirty-two of the thirty-seven rooms in five of these houses were overcrowded, and the ventilation of many was so defective that their atmosphere was "very offensive" at twelve o'clock in the day, when the beds were empty; and Mr. Liddle naturally shrinks from even imagining what the state of these rooms must have been at night when the beds (often so close together that it was impossible to pass between them) were all occupied. It is very clear that registering common lodging-houses is worse than a farce if it does not secure, by means of frequent and intelligent inspection, their being maintained in a proper condition, and prevent overcrowding. This inspection should not be left to the police, or should at any rate be supplemented by continual watchfulness on the part of the local sanitary authorities. That the condition of these numerous common lodging-houses in Whitechapel should have been so terribly neglected as to produce this severe outbreak of fever reflects discredit both on the police and the sanitary authority in Whitechapel. The neglect of the sanitary authority will be less surprising when it is known that this local body, in the exercise of a petty parochial economy, still refuses to pay registrars for supplying to the medical officer of health copies of the death register, which are so necessary to the due performance of his duties. Had he been furnished with these returns this outbreak of fever would have been sooner known to the health officer, and probably sooner stamped out.

"REFORM" OF CRIMINALS.

AN interesting discussion is in progress in the columns of the *Globe* on the treatment of convicts in penal establishments, and the "reformative" results attained. Mr. William Tallack, the zealous Secretary of the Howard Association, has entered the lists in the interests of "moral discipline" and the "separate system." Mr. Tallack does not advocate that extreme form of isolation which endangers the sanity of its victims. He would draw the line at the separation of prisoners from each other, and their protection from the evils of criminal association. We have recently had occasion to protest against the mistaken practice of crowding together cases of mental disease. The obvious objections to this short-sighted and unscientific system apply with equal force to the aggregation of minds debauched by criminality. The evil acquires new power of mischief by concentration, just as contagious or infectious diseases gain greater virulence by the aggregation of cases. The mischievous influences are, so to speak, focussed, and, acting and reacting mutually, they develop with augmented energy, and bear bad fruit multiplied a hundredfold. We entirely agree with the opinion that a wise adoption of the separate system would protect the less criminal, and prove increasingly punitive to the more depraved. Medical officers of prisons and workhouses are better qualified to bear testimony on these points than governors, who, for the most part, know little or nothing of the inner life of the establishments under their nominal control, and when they presume to dogmatise must do so on data supplied to them by subordinates, who are not to be trusted; and we are convinced that the concurrent opinion of medical officers of prisons and workhouses will bear out the judgment of the Secretary of the Howard Association in all its more important particulars. Another point upon which Mr. Tallack insists strongly is the importance of personal moral influence. In a pamphlet before us he condemns the dictum of Captain Griffiths that moral influences are of small value. Probably no one except a military disciplinarian would have broached so unreasonable a theory. As a matter of fact, soldiers are not the most suitable persons to deal with criminals. They are so entirely imbued with the belief that a man is so much raw material to be kneaded and beaten into a required shape, that they overlook the fact of his being a machine worked by a mind. There is no place for mind in the military system, and it is left out of the account by military men in dealing with convicts. But it is the mind which is at fault in a criminal. To disregard the mind and moral influences in such a case is to overlook the pivot upon which everything turns. If criminals are to be reformed, a large part of the task must be accomplished by purely moral forces. Foremost among them is that which acts most powerfully on the "conscience." On scientific grounds, not less than religious and moral, Mr. Tallack is right; and we trust his efforts to replace the purely "military" *régime* by something more humane

and humanising will awaken a response on the question where it may be expected to take a practical shape, and lead to the early reform of our so-called "reformative" prison discipline.

EXAMINATIONS.

THE current number of the *Fortnightly Review* contains an interesting paper by Professor Fowler "On Examinations." The burden of the author's complaint is that examinations are made to occupy too prominent a place in the University system, that they exert an injurious influence on teaching, and that they are so conducted as to stimulate the student to ambitious effort rather than industrious enterprise. Professor Fowler deals chiefly with general study at the universities, and his immediate object is to suggest reforms which may have the effect of rendering those institutions at once "seats of learning" and "training-schools" for practical life. We must confess to a strong feeling that the two ideas are incapable of realisation in the same working system. The pursuit of knowledge and teaching are processes which have little, if anything, in common. A practical counsellor, taking his stand outside the controversy, would probably advise that the universities should be left to play the part which has recently been assigned to them—namely, the training and hall-marking of men of average culture, who are expected to take a more or less active share in the business of social life, but not to carry their studies beyond the point required to give them a passport into good society. The real work done in scholarship and science is, with few exceptions, done by outsiders—men who have left the university behind, or retired from a system which they found to be incompatible with earnest and individual enterprise. With deference to those who think reform will restore the university to its old status and functions, without rendering it useless as a social training system, we think the time has come when scholars and men of science must retreat from the schools, as in old days it was the practice to retire to them, for the pursuit of knowledge beyond mere conventional book and class study. Meanwhile there is much that deserves attention in Professor Fowler's critique, and that is valuable in his suggestions.

We do not propose to track the professor's path in the discussion of university reform, but the appearance of this paper may form the occasion for again calling attention to points which affect the examination question in regard to medical education. If examinations are commenced too early in Arts, they are undoubtedly much more seriously antedated in Medicine. A man who passed through his curriculum twenty years ago would be greatly impressed with the juvenile aspect of students nowadays. Boys who ought to be playing "rounders" in round jackets, are found in the dissecting-rooms of the medical schools, and even in the hospitals, in defiance of all prudence and propriety. The practical consequence is that men "pass" before they can hope to practise, before their minds are capable of dealing wisely with the grave subjects of medical science. They lounge about and forget the little they know, so that when the time arrives for them to take a place in the business of their profession, they are jaded. It is the idle prattle of these young men which produces the froth of modern controversy in medicine. This juvenility lies at the root of the fussy "progress" which advances nothing, and it is a powerful factor in the differences which mark divergence in opinion and not of judgment. We think much would be gained if youths destined for the medical profession were kept longer at school studying the branches of a sound general education, instead of being pitchforked into that lounging ground which lies between the schools and the profession, and adds nothing to the capacity or usefulness of either.

That examinations have far too much influence on teaching and studying no one can doubt. The pernicious system of "cram" has grown out of studying with a view to being examined. It would be a great gain if examinations could be done away with altogether, and the old system of acquiring knowledge for its own sake substituted. But this is impossible. The most modern of the universities is an examining body pure and simple; it does not even pretend to teach. This is the age of examinations, and we believe it has many drawbacks and weaknesses inseparable from that character. The aim of the profession should be to discountenance the acquisition of knowledge packed in loosely and superficially with the purpose of coming to hand the moment it is wanted. Good knowledge is what we want; a thorough grounding. It is easy to build up a brilliant superstructure; the main concern should be centred in the foundation. The subject of "examinations" and the problem how to make them tests by the way, instead of goals, deserve the attention of the profession in a more serious sense than they have yet been discussed or regarded.

THE INOCULABILITY OF DIPHTHERIA.

UNTIL a comparatively recent period it has been generally considered that diphtheria could not be inoculated directly, either in man or the lower animals. This view, however, must be allowed to have been somewhat contradictory to the well-known fact of the conveyance of the contagion of diphtheria by means of pieces of false membrane, and to such cases as those of Professor Valleix and of Herpin and Gendron in France, and other similar cases in England. The belief was grounded on the negative results of some experiments on himself by Trousseau, and also more especially by Peter. The results of these experiments seem to have been accepted far too readily as evidence of non-inoculability of this disease. It should be borne in mind that a large number of experiments under varied conditions must all equally lead to a negative result before a belief in the non-occurrence of any given result can rightly be entertained; and even then a single positive result outweighs all the negative ones. In fact, the experiments of Trousseau and Peter were quite inconclusive. Trousseau dipped a lancet into some false membrane recently expectorated, and made punctures with it on his arm and on the velum palati. Peter made three experiments: in the first he allowed a small piece of false membrane, coughed up during tracheotomy, which lodged in his eye, to remain there without attempting to wash it out; in the second he scraped his soft palate and tonsils with a pair of pincers in which was held a piece of false membrane recently coughed up; and in the third, he inoculated a puncture of the mucous membrane of his lower lip with diphtheritic exudation. Of these somewhat foolhardy experiments only two can be considered as at all likely to have succeeded, and it is scarcely necessary to observe that scores of similar cases of escape from apparently certain infection with animal poisons might be cited, which yet only prove that there is a possibility of failure in the experiment. On the other hand, there is now abundant evidence that diphtheria can be inoculated, even in the lower animals. Thus Trendelenburg made experiments on pigeons and rabbits during an epidemic, and succeeded, in 11 out of 68 experiments, in producing diphtheritic false membranes in the larynx by placing in it pieces of recent exudation. Oertel even states that he has succeeded in nearly every case in inoculating rabbits; but in many cases blood-poisoning, rather than true diphtheria, seems to have been produced. Some experiments have recently been made on rabbits by Dr. Gabriel Duchamp. From his results he concludes

that the false membranes, when placed in the larynx and trachea of the rabbit, may give rise to a true diphtheritic process, whilst, in the absence of false membranes, the other products from the human larynx in a case of diphtheria did not appear to give rise to it, although they were very poisonous. The injection of diphtheritic exudation suspended in water into the subcutaneous cellular tissue, or into the jugular vein, gave rise either to no results or to septicæmia or pyæmia; and inoculations of the skin with false membrane were equally without result both in the rabbit and the horse. The number of experiments was, however, too limited to allow of our accepting these negative conclusions in an absolute manner. The subject is one of considerable importance, from its bearing on the mode of conveyance of the contagion of diphtheria; so far as experiments go at present, they would seem to show that the primary contagion is local, and that its effect depends on the existence of certain conditions of the mucous or other surfaces favourable to its reception, which is entirely in accordance with clinical experience. The existence or non-existence of fungus in the false membranes, and its dependence upon their presence is, it need hardly be said, an entirely different question.

THE HOME SECRETARY AND THE BOUNDARIES OF BOROUGHS.

THE Corporation of Glasgow, which has highly distinguished itself by great measures for ameliorating the health of the people, has lately done very admirable service by directing the attention of the Home Secretary to an evil that is felt most acutely by local authorities that are earnestly grappling with the sanitary evils of boroughs and cities. This evil consists principally in the limited area of authority. The more thorough and conscientious the work of the local authority, the more quickly, and we had almost said impudently, is the limitation of the area of authority taken advantage of. The case of Glasgow illustrates our meaning. It has at a great cost taken large sanitary powers. It has power to restrict builders and to impose taxes, and everybody but selfish and short-sighted builders and landlords sees that such restrictions and taxes are inevitable if the disgraceful mortality of large towns is ever to be reduced. But let us see how builders and owners of houses evade the just restrictions and taxes of the local authorities. They go into a contiguous region immediately beyond the line of sanitary authority, and set the authority at defiance by building houses without regard to the wants of the people, ill-drained, partly underground, in narrow streets, without accommodation. It is to no purpose to such people that a few years hence will see the houses infected with diarrhœa, fever, and every form of unhealthiness, to be remedied at a much greater cost than would be necessary in the first instance. The deputation which drew Mr. Cross's attention to this evil showed him a handbill which proved how unblushingly this class of persons will parade their defiance of sanitary law. Mr. Cross said the handbill should go forth to the public. We subjoin a portion of it read by the Home Secretary:—

"The ground is admirably adapted for houses of two rooms, for which there is an unlimited demand in this locality, and which realise a rent of £11 10s. per annum; and, being just outside the city boundary, the houses will be free from the city taxes and all the restrictions and annoyances imposed by the City Dean of Guild."

We assure the Home Secretary that this evil is not confined to Glasgow, but is spoiling the sanitary work of the local authority of every growing population, and urgently needs to be met by some firm hand like his own. We are glad to notice the terms in which the Home Secretary spoke of this evil and of the efforts of the Glasgow Corporation to overcome it. The people living in the outlying districts derive their wealth and many municipal advantages from the town near which they live, and it is only fit that, instead of squatting themselves down in a fool's paradise of insanitary conditions, they should from the beginning be brought under the reign of sanitary law.

THE QUEEN AT THE LONDON HOSPITAL.

THE ceremony of opening the new wing of the London Hospital on Tuesday was in every way highly successful, and must have been peculiarly gratifying to the officials of the institution whose labours contributed to the happy result. It may be said that this visit was Her Majesty's first appearance in the East-end since the Prince Consort's death, and it should not be forgotten that her auspicious re-appearance was made for the purpose of inaugurating the extension of a medical charity situated in the poorest part of our overgrown metropolis. Her Majesty cannot but have been pleased at the demonstration of sterling loyalty which marked her progress through the city. We have already described at length the construction of the Grocers' Wing of the London Hospital, and need not go over the ground again, further than to say that by the enlargement effected accommodation for 800 in-patients will now be provided by the institution. One ward was christened by Her Majesty the "Queen Victoria Ward," while another, which will be devoted to the reception of children, was designated the "Princess Beatrice Ward." Several of the wards in the older part of the building were visited, Her Majesty in especial evincing a warm interest in the little children under treatment in the Buxton Ward. The medical staff were represented by Dr. Andrew Clark, senior physician, and Mr. Jonathan Hutchinson, senior surgeon, who were presented to Her Majesty. The authorities of the hospital wisely determined to make the occasion the means of increasing their funds, and by the letting of seats, &c., must have made a substantial addition to their revenue, to which we may here state the Queen has contributed a donation of 500 guineas.

KNIGHTSBRIDGE BARRACKS.

THE false issues that have been raised from time to time with regard to the removal of the Knightsbridge Barracks are gradually being swept away, and in the resolution proposed by Lord Sandhurst, at a public meeting held on Tuesday, the question was placed before the public in its proper light. The resolution was to the effect "That, with regard to the modern condition of London, the question of the removal of the barracks from Knightsbridge should be determined on the grounds of the public convenience, of the health and comfort of the regiments concerned, and of the facility for the performance of their duties." After this resolution had been discussed and carried, Mr. Yorke, M.P., moved the second resolution, "That, having heard from General Lord Sandhurst that the presence of the household cavalry on the actual site of Knightsbridge is not essential for the maintenance of peace in the metropolis, and considering the great public improvement which could be effected by their entire removal, this meeting is of opinion that the proposal of the Government to reconstruct them on their present site is not only unnecessary, but opposed to the public interest." Lord Headley, in seconding the motion, said the great objection to the present site for the barracks was insufficiency of space. Writing on the subject in 1868 (*vide* THE LANCET, vol. i., page 386), we pointed out that the ground on which the barracks are built is too narrow for the erection of accommodations adequate to a large regiment. Nor have the public yet

forgotten the reports of the Hospital and Barrack Commission, in which the manure and excrements accumulated on the southern side of the barracks were proved to be highly deleterious, not only to the non-commissioned officers, privates, and horses stationed there, but even to the inhabitants of the neighbourhood. If the Knightsbridge site is retained by Government, all the conditions of overcrowding will be perpetuated in the new buildings, and the objectionable arrangement of having the horses on the ground floor and the men above will of necessity be continued. We cannot agree with the Duke of Cambridge that such an arrangement is a healthy one, and that troops so lodged are not so liable to chills as when they have to pass from their quarters to detached stables. The evidence, however, of Professor Parkes, the highest authority in the kingdom on points of military hygiene, and quoted by Lord Sandhurst on Tuesday, definitely decides the question. Professor Parkes has reported that the Life Guards stationed at Knightsbridge suffered more from lung disease than any other regiment in the service, and Professor Parkes has most positively declared the necessity of removing the men from the stables, the contact being neither good for themselves nor for their horses. Mr. Hardy has promised that the plans for the new buildings shall be laid before the House for approval before any decisive action is taken; if it is then found the architect has been obliged, from want of space, to continue the objectionable arrangement, it will be the duty of the House to express a decided opinion on the point. We cannot believe the country will allow an arrangement to be continued which has been condemned by all sanitary authorities. We are quite sure that the Local Government Board would not for one moment permit the guardians of the poor to erect a workhouse for the accommodation of a similar number of inhabitants on such an insufficient and contracted space.

OFFENCES AGAINST THE PERSON.

A BILL to amend the law relating to offences against the person is at present before the House of Commons, and contains the following clause:—"If the mother of any child shall unlawfully and maliciously wound or inflict any grievous bodily harm upon such child during or immediately after its birth, she shall be guilty of felony, and on conviction thereof shall be liable, at the discretion of the Court, to be kept in penal servitude for any term not exceeding ten years, or to be imprisoned for any term not exceeding two years, with or without hard labour." Under the law as it at present stands cases have occurred in which justice has miscarried in a marked manner, and in which the punishment has been in great excess of the offence. The effect of the above clause will be to make the law still more stringent, and to render criminal women who should, in many cases, be held blameless. It is a well-known fact that the injuries enumerated in the above clause are almost invariably committed by women while in a state of mental alienation, which may last for some time or be of the most transient character. Transient as this state may be, however, there can be no doubt that while it continues women are not responsible for their actions, and to make mothers answer for and expiate acts committed under such conditions appears to us cruel and inhuman. We are glad to find that a committee of ladies has been formed with a view to draw up and present a petition to the House against the passing of the Bill. We trust that their efforts will prove successful. It seems to us that the labour and ingenuity expended in drawing up this Bill would have been better employed in depriving certain women of some of our northern towns of the privilege of being brutally kicked by their savage husbands.

MEDICAL INSPECTION OF SEAMEN.

IT appears from reports that have reached us that sect. 25 of the Merchant Shipping Bill, relating to this important subject, is not received favourably by the shipowning community, and has, indeed, been practically repudiated by the very influential committee of shipowners the leading members of which had an interview with Sir Charles Adderley last week. The operation of the clause will, according to the masters' view of the matter, act partially and unfairly in that it will drive the sailors from ships where an examination is ordered to vessels where no such inspection will be made. The shipowners are willing to agree to a compulsory clause which shall insist upon a medical inspection in all cases. We think that this inspection might be made, subject to the discretion of the officers concerned, so that it would not, as a matter of necessity, involve the inspection of every member of a crew. It is an error to state, as was remarked in the *Shipping Gazette* of the 1st, that "seamen refuse to submit to medical examination." We are not aware of any evidence that can be adduced in support of this assertion. Dr. Ward, the medical inspector of seamen appointed by the Board of Trade for the port of Grimsby, has probably examined more seamen than all the other inspectors, and states that on no occasion has he ever met with any sort of trouble or opposition from the examinees. It is manifestly unfair to condemn a system before its operation has been even organised or attempted, and we hope that when this particular clause is reached in committee, the President of the Board of Trade will be prepared with an amendment acceptable to the shipowning community.

THE EFFECT OF COLD ON MILK.

THE effects of a low temperature on milk have been carefully examined by M. Eug. Tisserand, who recently communicated his observations to the Académie des Sciences. He found that, if cows' milk is immediately, or soon after being drawn, placed in vessels at various temperatures between freezing-point and 90° F., and the initial temperature is maintained for twenty-four or thirty-six hours, it will be found that the nearer the temperature of the milk is to freezing-point the more rapid is the collection of cream, the more considerable is the quantity of cream, the amount of butter is greater, and the skimmed milk, the butter, and the cheese are of better quality. These facts, he believes, may be explained by Pasteur's observations on ferments and their effect on the media in which they live. It is probable that the refrigeration arrests the evolution of the living organisms which set up fermentation, and hinders the changes which are due to their growth. The facts stated indicate room for great improvement in the methods of storage and preservation of milk. To keep milk at its original quality extreme cleanliness and a low temperature are absolutely necessary. In the North of Europe, Denmark, &c., the value of cold is already recognised, and in warmer climates the need for its assistance is greater. There is nothing impracticable in the suggestion, since running streams can be used to aid refrigeration. Where the quality of the milk is of great importance, ice may be employed.

USURY AT THE UNIVERSITIES.

THE action of "Linklater v. Saunderson," which terminated last Saturday in a verdict for the plaintiff, exhibits a dark picture of University life. For years past an outcry has been raised against the extreme facilities that exist at both Universities (and also at the public schools) for extravagant lads to borrow money, and live during their University career on almost unbounded credit.

The outcry has been raised in vain, and the University authorities have as yet shrunk from dealing an effectual blow at this iniquitous system. It is of little use to discommons a bill-discounter—that is, to send down every undergraduate found dealing with him,—since such dealings are always kept dark till the limits of borrowing and credit are past, and removal becomes a necessity irrespective of the decree of the dons. The question, however, is of such vital importance, and the evil is so deeply rooted, that it calls for treatment more vigorous than mere proctorial interference. The attention of Parliament ought to be drawn to the subject, and a Bill should be introduced which should effectually provide against the possibility of persons in *statu pupillari* being able to borrow money or contract debts without the knowledge or consent of their parents or guardians. Not only should all debts so contracted be absolutely void, but the money-lender or tradesman advancing the money or giving credit, whether at the Universities, London or elsewhere, should also incur the penalty of imprisonment with hard labour.

THE DWELLINGS OF THE POOR.

ATTENTION has been lately called to one of the commonest trials to which the very poor are subjected; we mean the presence of a corpse in the one room occupied by a family. This melancholy condition of things is rendered doubly so when the circumstances attending the death of the deceased are such as to render a post-mortem examination necessary. To have to make a post-mortem examination in a wretched hovel, dark, dirty, crowded with furniture, and without any appliances for decency or cleanliness, is not only a disagreeable work for a medical man to undertake, but the difficulties are such that the examination, as far as scientific accuracy is concerned, is often the hollowest of mockeries. If to work for an hour in such a place be disagreeable and unsatisfactory to the medical man, what must be the condition of those who have to live with the corpse until its interment, no inconsiderable time very often with the poor, who cling with strange tenacity to the lifeless bodies of their friends. The recommendation lately made by a jury at a recent inquest that regular post-mortem rooms should be established in every crowded district, is one of those which we make periodically in our columns. Certain districts of the metropolis have set the example, and it is to be hoped that others will not be slow to follow it. We have pointed out that the disused graveyards, which are so plentiful throughout the town, would be situations suitable in every way for the erection of public mortuaries, in which deceased poor might await burial with decency, and post-mortem examinations be performed with efficiency.

NON-PAUPER CASES OF INFECTIOUS DISEASE IN LONDON.

THE control of epidemic diseases depends to no slight extent upon the provision of hospital accommodation for non-pauper cases, and upon its use by those classes who, though far removed from paupers, possess no means for isolating cases of these diseases at home. Sanitary authorities have not hitherto availed themselves to any large extent of the permissive powers conferred on them by the Public Health Acts of 1872 and 1875 for the erection of what may be called sanitary hospitals. In London the sanitary authorities have as yet made no attempt to provide this necessary hospital accommodation; the Metropolitan Asylum Small-pox and Fever Hospitals being alone available for pauper cases, and intended to relieve the workhouse infirmaries from cases of infectious diseases. We are pleased to learn from the Registrar-General's last Weekly Return that the Kensington Vestry, as the local sanitary authority, has made arrangements with the London Fever Hospital for the reception of such non-pauper cases of fever as it may be desirable to isolate. This is an important step in the right direction, and it may be hoped that the example set by the Kensington Vestry will be followed by the sanitary authorities of other metropolitan parishes. Since the beginning of this year nineteen typhus and enteric fever patients have been discharged from the London Fever Hospital recovered, and only one has died. Of scarlet-fever patients, 130 have been discharged recovered and only sixteen have died during the past nine weeks.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE time for the appointment of a successor to the late Mr. Gascoyen on the Board of Examiners of the Royal College of Surgeons of England must be drawing nigh. Nothing has yet transpired respecting the recommendation of the committee, if indeed it has been made. We venture, however, to refer again to the especial fitness of Mr. Hulke, surgeon to the Middlesex Hospital. As a successful teacher at a large and flourishing medical school, as a skilled surgeon and an accomplished anatomist, Mr. Hulke would, we are convinced, be a valuable acquisition to the staff of examiners at the College, while his election would meet with unqualified approval by those outside.

OUTBREAK OF TYPHOID FEVER IN BURNLEY.

AN outbreak of typhoid fever has occurred in one of the best neighbourhoods of Burnley, and of 26 reported cases 6 are said to have proved fatal. Most of the families attacked were supplied by milk from the same dairy. Burnley is a town of about 50,000 inhabitants, and suffered somewhat severely from an epidemic of scarlet fever during 1875, which caused more than 100 deaths; and we observe from the Registrar-General's Quarterly Report that during the last three months of the year 11 deaths were also referred to fever. The rate of infant mortality during the year, measured by the proportion of deaths under one year to births registered, was as high as 200 per 1000. These facts do not reflect a satisfactory sanitary condition of the town, which forms part of the combined urban and rural district of Burnley.

A DEPUTATION from the Manchester and Salford Corporations, and the Mersey Docks and Harbour Board, waited upon the President of the Local Government Board a few days ago, to urge the desirability of bringing in a short Bill during the present session which should provide against throwing into rivers any matters which impeded navigation, although not actually polluting the stream. In reply an assurance was given that the whole question was under the consideration of the Government, and that the provision suggested should not be overlooked, and a belief expressed that "if they could only quiet the alarms of those with whom no one intended to interfere unduly, they might accomplish something."

THE Wakefield Town Council, at a recent meeting, decided to take the necessary steps for opposing a Bill of the Wakefield Waterworks Company, now before Parliament, in which powers are sought to extend their limits of supply, and to raise £80,000 of additional capital. The Town Council urges that the town is badly served by the company and that the supply is not only inferior in quality, but deficient in quantity; but the Council seem more inclined to modify the powers asked for by the company in their new Bill than to assume the responsibility of the water-supply by purchasing the works and goodwill of the company.

IN answer to a question in the House of Commons respecting public analysts, Mr. Sclater-Booth stated that up to the present time there were thirty-four analysts appointed in the counties and forty-two in boroughs, but he had no means of knowing in how many cases arrangements had been made by which analysts could be employed in adjoining districts, as provided by the Act. He was not aware that no practical result had followed owing to the absence of any provision for the payment of salary to the analyst. No doubt practical results had not followed in all cases, but that was owing to the impossibility of employing the police, previous to the Act of last session; but the evil was now remedied. If a case of necessity were made out, he would be willing to employ the powers of compulsory appointment vested in the Local Government Board; but he had no information before him which led him to think the time had arrived for the exercise of those powers. At present he was not in a position to recommend any uniform system of remuneration.

IN the best sanitary interests of Salford, the health of which has been far from satisfactory for some months, it is gratifying to know that the opposition raised, by the owners and occupiers of property in the neighbourhood, to the establishment of a Borough Hospital for infectious diseases on the site fixed upon by the Town Council, has failed. At a recent meeting of the Town Council, to take into consideration certain memorials against the appropriation of Wilton House and adjoining property for the purposes of such a hospital, a resolution declaring that it was inexpedient to rescind the determination arrived at on the 16th ult., to confirm the purchase of the house and site, was carried on division by 19 votes against 10. It is to be hoped that further opposition to the scheme will be abandoned, and, as in so many other similar cases, it will probably be eventually found that the hospital, while of immense sanitary value to the borough, will not be a source of either nuisance or danger to the surrounding neighbourhood.

THE Liverpool special committee on water-supply recently held, in private, a meeting at the Town Hall for the further consideration of the draft report on the water-supply of the town, prepared by the chairman and town clerk. At a previous meeting of the committee the proposal to supplement the present supply by well-water had been definitely abandoned; and the last meeting was therefore devoted to the discussion of the relative merits of the different gravitation schemes, especially those proposing to take water from Ullswater and Windermere. A motion to the effect that the Windermere scheme should have preference over all the other gravitation schemes was in the end carried by a large majority. The final revision of the report was left in the hands of the chairman, and it may be expected that the report will shortly be presented.

WE understand that the corporation of a large provincial town are about to memorialise the Local Government Board for an amendment of the Public Health Act, 1875, which shall provide for the communication without delay to the medical officer of health of every case of small-pox, scarlet fever, typhus, or typhoid occurring within his district; the duty of making such communication to be made compulsory upon the occupier of the house in which the infected person lies; the medical man in attendance, if any, being further bound to report the case, through the occupier, to the medical officer of health; provision to be made for remunerating the practitioner for preparing such a return. An amendment of the Act to a somewhat similar effect has been before suggested.

IN London last week 1544 deaths were registered, giving an annual rate of mortality of 23 per thousand. The deaths included one from small-pox, 57 from measles, 45 from scarlet fever, 7 from diphtheria, 80 from whooping-cough, 19 from different forms of fever, 18 from diarrhœa, and 405 referred to diseases of the respiratory organs. The rate of mortality from the zymotic diseases ranged from 2·6 to 3·7 in the various groups of districts. The deaths of two ostlers from glanders were recorded, one in St. Mary's and the other in St. Thomas's Hospital. The London Fever Hospital contained 84 patients on Saturday last, 67 of whom were under treatment for scarlet fever. The latest returns from Continental cities indicate an increase of disease.

As we go to press, we learn that Mr. Lyon Playfair will ask the Secretary of War, in the House of Commons, whether he purposes to lay on the table any papers showing how far the proposed changes in regard to new army medical officers will affect the future pay of surgeons under the old rules, and what bearing the proposed short-service system, in the Army Medical Department, is likely to have on the long services of medical officers in India and the navy. Mr. Errington, M.P. for Longford, will also ask "Whether Government intends taking any steps this session to facilitate the adoption of the 'Conjoint Scheme' in examinations for medical degrees."

WE regret to have to announce the death, at the age of forty-seven, of Dr. John Morgan, Professor of Anatomy in the Medical School of the Royal College of Surgeons in Ireland, and Surgeon to Mercer's Hospital, Dublin. Dr. Morgan was a graduate of Trinity College, Dublin, and a fellow and member of the Council of the Royal College of Surgeons in Ireland. He succeeded the late Mr. Power in the chair of Anatomy in the Royal College of Surgeons in 1861. We hope next week to publish an obituary notice of Dr. Morgan.

THE typhus patients in the Metropolitan Asylum Fever Hospital at Homerton continue to increase. During the week ending the 4th instant, 7 new cases were admitted, 4 were discharged recovered, and 2 died, leaving 48 patients suffering from the disease; against numbers increasing steadily from 2 in the middle of November to 47 in the last week of February. During the first nine weeks of this year 55 cases of typhus were admitted to this hospital, 20 were discharged recovered, 6 died; 48 remained in the hospital on the 4th inst., against 20 on January 1st.

IT is understood that Dr. Barnes has resigned his seat at the Midwifery Board of the Royal College of Surgeons, declining to be instrumental in examining persons for a special obstetric licence to be granted without proof of adequate knowledge in medicine and surgery. It is also rumoured that at least one eminent obstetric teacher has declined to accept the vacant office.

WE regret to learn that Dr. Lush, M.P., has been suffering from bronchitis. Though he is recovering, he is advised not to resume his Parliamentary duties till after Easter. Dr. Lush's absence is the more unfortunate at this time, as questions affecting the welfare of the Medical Department of the Army are under discussion, in which it is known that he takes a great interest.

A REMARKABLE outbreak of fever has taken place at St. George's Industrial School, West Derby-road, Liverpool, where as many as 180 cases are said to have occurred; only one, that of the governor, has, however, proved fatal.

THE *Irish Times* of Saturday, the 4th inst., has an article strongly favourable to Mr. Hardy's new short-service scheme for the Army Medical Department.

Correspondence.

"Audi alteram partem."

BRITISH MEDICAL ASSOCIATION.

To the Editor of THE LANCET.

SIR,—Would you kindly insert the following letter addressed to the Editor of the *British Medical Journal*, which has also been sent to him for insertion?

Your obedient servant,

W. KEBBELL.

To the Editor of the "British Medical Journal."

SIR,—As the terms in which you and the Committee of Council speak of the late meeting held in Brighton on the 22nd ultimo, are calculated to mislead, not only the members of the Association, but the profession generally, I feel constrained, as chairman of that meeting, to set forth thus publicly its true nature.

The meeting in question was convened by a circular signed by the three secretaries appointed by the Committee of Council, and sent to every qualified practitioner in the town.

The objects of the meeting being set forth in the agenda, the appointment of president, vice-presidents, and secretaries of each section, and the members of the six or seven local committees, we have a right to assume that all interested in the approaching August meeting attended in person or by letter. What are the facts? Thirty-one responded to this invitation; out of these twenty-five voted for Dr. Withers Moore's amendment, and one (exclusive of the secretaries) against it, thus clearly showing forth the feeling which pervades the profession as to the line of conduct which has been pursued by the authorities of the Association.

As the history of this unfortunate business will no doubt be written before the August meeting, I shall forbear to comment upon the taste or wisdom of the acts of the Association, and will merely add that in my humble opinion the British Medical Association, and not the profession of Brighton, are responsible for the present unseemly state of matters.—I am, Sir, your obedient servant,

WILLIAM KEBBELL, M.D.,
Chairman of the Brighton meeting.

Brighton, March 7th, 1876.

To the Editor of THE LANCET.

SIR,—As a member of the British Medical Association, I am desirous of asking the President and Committee of Council whether it is desirable to *persist* in their expressed intention to hold the annual meeting at Brighton this year, after the determined opposition manifested by the medical practitioners of Brighton on more than one occasion. To persist in compelling the profession at Brighton to receive the Association will, I think, appear to others beside myself to be not only bad taste but bad policy, when other towns, such as Liverpool, are desirous of the honour.

The government of the Association, I regret to find, is rapidly falling into the hands of a clique, who endeavour to rule it with a rod of iron regardless of the wishes of its members.

Could anything be much worse than the arrangement of the business part of the meeting at Edinburgh—no time set apart for the discussion of the new bye-laws, the management of the *Journal*, or the financial statement? There is a limit even to the patience of the members of the British Medical Association, and I fear that unless a speedy reformation is effected "Ichabod" will be written over our doors.

I hope that more influential members of the Association than myself will remonstrate with the President and Council, and point out to them the danger of the course they are pursuing.—I am, Sir, your obedient servant,

JOHN MARSHALL, L.R.C.P. Lond.

Liverpool-street, Dover, March 7th, 1876.

PUNCTURE OF THE TESTIS IN ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—I should feel obliged if you will insert the enclosed extract from a note I have received from a Russian surgeon. I was not at all aware that Pirogoff had practised this method of treating orchitis. I am very much pleased to find that I was preceded by this very distinguished surgeon in recommending and adopting this plan, and I regret that, during the late discussion on the subject, I was unable to refer to Pirogoff as well as to Vidal de Cassis as an advocate of the practice referred to.

I am, Sir, obediently yours,

HENRY SMITH.

Wimpole-street, March, 1876.

Copy of part of letter.

"I read with pleasure your article in THE LANCET 'On the Treatment of Acute Orchitis by Puncture of the Testis,' and I take the liberty to communicate to you that I saw the method used in 1852 by Nicolaus Pirogoff, then Professor of Operative Surgery at the Medical Academy of St. Petersburg, and it is very difficult to state who introduced the mentioned method, Vidal or Pirogoff. At all events, I am able to say that at least from that time it has been in general use with Russian practitioners."

To the Editor of THE LANCET.

SIR,—Having formerly been in surgical charge of a large number of men ashore and afloat for some years, many cases of orchitis have come under my care, in which a speedy return to work was of the utmost importance. Instead of employing heroic measures that might well appal the stoutest heart, and add to the exquisite pain and tenderness already existing (even for "moral effect" in cases due to gonorrhœa), I invariably found one of the following methods, combined with saline aperients, &c., bring about a rapid cure.

Whenever the tenderness admitted of it, whatever the extent of inflammation and swelling, I immediately proceeded to strap the inflamed testicle; but to ensure effectual support to the distended vessels, deep and superficial, by the equable pressure and intimate adherence of the plaster, I first carefully isolated the swelled testicle, and rendered the scrotum tense over the tumour by tying a strong strip of lint above it, leaving a rounded swelling, with a kind of pedicle. This strapping (not the lint) was removed from time to time, as it became loose and wrinkled from subsidence of the swelling. The whole scrotum was also well supported. This method generally permits return to work on the spot.

When, from delay and neglect, the strapping could not at first be borne (which very rarely happens), I at once applied extract of belladonna mixed with sufficient simple ointment to enable it to spread on lint (the extract is soft enough alone in warm climates) to the whole inflamed surface. Light pressure with a bandage, rest, support to the scrotum, and constitutional measures, as aids to the anodyne, speedily remove the pain. The belladonna may be renewed as often as it becomes dry. When the first pain and tenderness were somewhat alleviated, I resorted to the strapping as described above, and conducted the case to a certain favourable termination.

These methods, contrasted in practice with the use of the knife, or the slow and tedious remedies usually employed, have everything in their favour—remove the pain at once, permit speedy or even instant return to work, and ensure rapid cure in a humane manner.

In conclusion, I can only express my wonder that the advocates of the puncture method ever induce or force any suffering wretch to consent to the use of such ruthless means as the knife for one moment.

Apologising for trespassing so long on your time and space,

I remain, Sir, your obedient servant,

WM. H. HIGGINS, M.B. & C. Edin., M.R.C.S. Eng.

County Asylum, Mickleover, near Derby,
March 2nd, 1876.

THE TURPENTINE TREATMENT OF ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—The regiment of which I have medical charge arrived in India on the 18th of March, 1875, and between that time and the end of the year seventeen persons were attacked with enteric fever. Of this number five were treated in the ordinary way, and in them the disease ran a long and severe course, many complications arising during its progress, and finally proved fatal in two out of the five cases, which is about the usual mortality in this country. The remaining twelve patients were treated with turpentine, and in them the disease ran a short and mild course, with few complications; and all the symptoms, but especially the enteric, were so modified that no fears were entertained during its progress of an unfavourable termination, and the twelve patients, without an exception, made good recoveries.

The line of treatment pursued was as follows:—As soon as the disease was diagnosed, oil of turpentine in half-drachm doses, made up with mucilage of eggs, was given four times a day, and continued throughout its course; and nourishment in the liquid state—such as beef-tea, milk, chicken-broth, eggs beaten up, &c.—was given freely, and a stimulant—generally brandy—was given as the symptoms indicated, but less in the cases that occurred latterly than formerly. The turpentine treatment of enteric fever was first brought to my notice by Dr. Moffitt, of Sydney, where the disease is always prevalent; and as far as I can ascertain he was the first to use it systematically throughout the disease. He has practised it for many years with great success, but the results of his experience were not published until about two years ago, and then only in a local paper—the *New South Wales Medical Gazette*. As to its *modus operandi* I would not yet hazard an opinion. Dr. Moffitt claims for it a specific action. Whatever its mode of action, if it prove as successful in the hands of others as it has done in mine and in Dr. Moffitt's practice, I have every hope it will take a place in the treatment of enteric fever similar to that taken by ipecacuanha in the treatment of dysentery and quinine in the treatment of malarial fever. When the disease assumes a remittent character, which it will do where the patients have been subject to malarial influences, Dr. Moffitt combines it with quinine, and thinks it acts better.—I am, Sir, yours truly,

Poona, Feb. 11th, 1876. A. MOFFITT, Surgeon-Major.

THE SPHYGMOGRAPH IN MEDICINE.

To the Editor of THE LANCET.

SIR,—I read in your journal of Feb. 19th an interesting paper by Dr. Handfield Jones, entitled "Some experience of the Sphygmograph in Medicine." As I have devoted some attention to the study of that valuable medical instrument, I am aware of the difficulties sometimes met with in its application. On examining carefully the tracings which Dr. Handfield Jones has brought forward, they appear to me to be imperfect, and as if the up stroke had been cut short, owing to the pressure of the needle upon the glass or paper having been too strong. I may illustrate what I mean by the following tracing taken for a case of aortic constriction with hypertrophy of the left

ventricle. The first five or six beats show that the pressure upon the paper has been too strong, and not allowed the needle to rise to the proper height, as appears in the latter part of the tracing.

In cases of great debility, where the action of the heart is weak, we obtain a rounded and short up stroke, and very little, if any, dicrotism; but if, as is shown in the tracings by Dr. Handfield Jones, there is well-marked dicrotism, the muscular contraction of the arteries must have been at least of average strength. The contractile power of the ventricle in such cases is sufficient to propel blood enough into the arteries to give a sharp up stroke, unless the pressure on the needle is too strong to allow it to rise. The tracings appear to me to be abortive, the up stroke being cut off, and do not truly write the character of the pulse such as is found in the class of cases Dr. Handfield Jones has described.—I am, Sir, yours faithfully,

ALEXANDER INGLIS,
Consulting Physician to the Worcester Infirmary.

Cheltenham, Feb. 29th, 1876.

THE DENTAL PROFESSION AND THE ODONTOLOGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I thank you for having granted me a hearing in your last issue, also for the interest you take in the Odontological Society, as evinced in your remarks on my letter, and your expressed belief that the discussion will prove beneficial to the institution. Believing that the Odontological Society has nothing to fear from, but every reason to court, a free discussion of its management and position, I make bold to intrude its affairs once again on your valuable space, not, I assure you, without a high appreciation of your forbearance.

The contention against the imputation of lax laws is perfectly serious on my part. First, I object to the term "lax," as exceedingly offensive. It is so when applied to morals, and as the laws of a society are the embodiment of its principles, or, in other words, the morals of a society, the expression is, to my mind, highly objectionable.

But there are other grounds on which the accusation may be met, and as you seem to have been rather misled in the matter, I shall try in a few words to state the true position of affairs.

The charge of laxity is supported on the ground of other than the holders of the dental diploma of the Royal College of Surgeons being admitted to membership. In reply, I state that when the Society was formed the London Dental Society was not in existence. Our first esteemed president, although a Fellow of the Royal Society, had no medical or surgical degree; and the second president, although afterwards a L.D.S., had no professional diploma whatever during his period of office. Further, we have on our list of members several gentlemen who, while holding high professional diplomas, have not the essential one for a dentist—viz., the L.D.S. Of course you can at once say that the greater includes the lesser, but this axiom, however convenient, is not so easily adopted by those who have the responsibility of deciding the matter. The question of limiting the membership of the Odontological Society to the holders of the dental diploma is not a new one to the Council, but has been discussed from time to time by its members, and I trust the period is not far distant when this most desirable change may be made with advantage to the profession; but, until that time comes, the Council must be allowed to manage the matter in its own way. It best knows the fight which has been maintained with unscrupulous opposition, selfish indifference, and reckless ambition, and how and when the various conflicting views had best be conciliated or dominated, and I think I am right in saying that the proper chance will not be allowed to slip.

Anything like forced marching in the matter will certainly prove disastrous. The surgical profession had once to struggle from a position even more degraded than that of the present one of dentistry. Its history is not without a record of its difficulties, and these were encountered at a time when power was more despotic and vested interests less respected than they are at present. In reminding you of this I beg your consideration, and ask for the Odontological Society the credit of being alive to all the responsibilities and difficulties of its position, and of its Council being guided by wisdom and moderation. "Who go softly go wisely."—I am, Sir, yours obediently,

JAMES SMITH TURNER, M.R.C.S. and L.D.S.

March 8th, 1876.

CORONERS.—According to a return just issued, there are 340 coroners in England and Wales, and the cost of the coroners and the expenses of the inquests in the last year given amount to £32,538.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 2nd:—

Brown, Francis Wheeler, Brompton Hospital.
Young, John, Narborough House, Leicestershire.

The following gentlemen passed the Primary Professional Examination on the same day:—

George Thomas Congreve and William Harding Crowther, King's College; Roger Lee, Guy's Hospital; Philip Morgan Richards, London Hospital; Frederick Adolphus Trevan, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Preliminary General Examination for the Diploma of Member and Fellow of this College will commence on Tuesday next, the 14th inst., at the University of London, Burlington-gardens, W. These examinations, which have hitherto been held in the months of June and December, will for the present take place in March and September.

STATE MEDICINE AT CAMBRIDGE.—The next examination for a certificate in State Medicine at Cambridge will commence on June 13th. Candidates must send in their applications to Professor Liveing on or before May 30th. All requests for information should be addressed to Professor Liveing, Cambridge. Any person on the Medical Register, who is twenty-four years of age, may present himself for this examination.

THE Medical Society held its 103rd anniversary dinner at the Criterion Restaurant on Wednesday last, the President, Dr. Routh, occupying the chair. There were upwards of seventy fellows and guests present.

DR. RALPH GOODING, of Blackheath, a Botanical Prizeman of King's College, London, and Medalist of the Society of Apothecaries, has been elected a Fellow of the Linnean Society.

THE Darlington Corporation, after a delay of four years, has, it appears, begun to carry out the provisions of its Act of 1872 with regard to the disposal of the sewage of the town. After due deliberation the Sewage Committee have decided to adopt the irrigation plan pursued at the sewage farm at Leamington.

No less than ten men were recently fined in Banbury on one day for refusing to have their children vaccinated. This event was made the occasion of an anti-vaccination demonstration, at which the defaulters and a number of their friends were carried round the town in a vehicle drawn by three horses.

Medical Appointments.

BEVAN, F. C., M.R.C.S.E., L.S.A.L., has been appointed Resident House-Surgeon to the Brighton and Hove Dispensary, vice Butler, resigned.

CAMERON, J. S., M.D., B.Sc., has been appointed Physician to the Huddersfield Infirmary.

CLEGG, W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Boston Rural and Urban Sanitary Districts, at £360 per annum for three years.

COUPLAND, S., M.D., M.R.C.P.L., has been appointed a Physician to the St. George and St. James Dispensary, King-street, Regent-street, vice Boyd, resigned.

COUTTS, J., L.F.P.S.Glas., has been appointed Medical Officer and Public Vaccinator for the Parish of Morven, Argyllshire, vice McGregor, resigned.

DUNBAR, A., M.D., has been appointed Medical Officer for the North Municipal District of the West Derby Union, Lancashire, vice Anderson, resigned.

ELLIS, J. L., L.K.Q.C.P.I. & L.M., has been appointed Medical Officer and Public Vaccinator for the Mallwyd District of the Dolgelley Union, vice Ferguson, whose appointment has expired.

EWENS, J., L.R.C.P.L., L.R.C.S.Ed., L.S.A.L., has been appointed an Acting Medical Officer to the Bristol Hospital for Sick Children and the Out-door Treatment of Women, vice Pigeon, resigned.

FOTHERGILL, J. M., M.D., M.R.C.P., has been appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Corfield, resigned.

FRASER, J. J., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer of Health for the Clitheroe Urban Sanitary District.

GRAHAM, J., M.D., C.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Killough Dispensary District of the Downpatrick Union, co. Down, vice Harrison, resigned.

GREENWOOD, T. P., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Stamford, Rutland, and General Infirmary, vice Paradise, resigned.

HAWARD, E., M.D., M.R.C.P.L., has been appointed a Physician to the North London Hospital for Consumption and Diseases of the Chest, vice Lomas, resigned.

HAWKINS, A. F., M.R.C.S., L.R.C.P., has been appointed to the office of Resident Surgical Officer to the General Hospital, Birmingham, vice Ottley, resigned.

HICKS, E. J. W., M.D., M.R.C.S.E., L.S.A.L., has been appointed Accoucheur to the St. George and St. James Dispensary, King-street, Regent-street, vice Fowler, resigned.

HILL, A., M.D., has been appointed Public Analyst for Coventry.

JAY, H. M., M.R.C.S.Ed., F.R.C.S.Ed., M.R.C.S.E., L.S.A.L., has been re-appointed Medical Officer and Public Vaccinator for the Pewsham District of the Chippenham Union, and Medical Officer of Health for the Pewsham Sub-district of the Chippenham Rural Sanitary District.

MACKINLAY, J. G., L.R.C.P.L., M.R.C.S.E., has been appointed Surgeon to the Western Ophthalmic Hospital, vice Freeman.

MAGUIRE, R. F., L.K.Q.C.P.I. and L.M., L.R.C.S.I., has been appointed Medical Officer to the London and North-Western Railway Club, Holyhead District, vice Roberts, deceased.

MARSH, W. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Social Brothers Club, Walworth, vice Marsh, deceased.

MATURIN, L., L.R.C.P.I., L.K.Q.C.P.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Achill, and Admiralty Surgeon and Agent for the Stations of Keel, Achillbeg, Dugort, and Ballinamoth, vice Scott, resigned.

NICHOLSON, M. E. B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Salop Medical Aid Association, Shrewsbury, vice Marsh, resigned.

O'HAGAN, P. J., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Kingscourt Dispensary District of the Bailieborough Union, co. Cavan, vice Rooney, appointed to the Athboy Dispensary District of the Trim Union.

PLETTS, J. M., M.D., M.R.C.S.E., L.S.A.L., has been appointed Surgeon and Agent to the Coast Guard for the Ryde District, vice Barrow.

PROCTER, A. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Barton-under-Needwood District of the Burton-on-Trent Union, vice Webb, deceased.

RUSSELL, F. J. R., has been appointed Attending-Accoucheur to the Provident Medical Institution and Lying-in Charity, for the Westminster and Pimlico districts, vice Moore, resigned.

WILDING, W. A., M.R.C.S.E., L.K.Q.C.P.I., has been appointed Junior House-Surgeon to the Borough Hospital, Birkenhead, vice Wardrop, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On the 1st inst., at Bartholomew-road, Kentish-town, the wife of Andrew Brown, L.R.C.P.E., of a son.

EDWARDS.—On the 5th inst., at Furneaux Pelham, the wife of Frank Edwards, L.R.C.P.Ed., of a son.

FENN.—On the 29th ult., at the Old Palace, Richmond, the wife of Edward L. Fenn, M.D., of a daughter.

HOLLIS.—On the 1st inst., at St. John's-terrace, Brighton, the wife of Wm. Ainslie Hollis, M.D., of a daughter.

JOUBERT.—On the 5th ult., at Burdwan, Bengal, the wife of C. H. Joubert, M.B., F.R.C.S., Civil Surgeon, of a daughter.

SALT.—On the 6th inst., at Egremont, Bournemouth, the wife of Henry Salt, M.D., of a daughter.

SECCOMBE.—On the 6th inst., at King's Lynn, the wife of John Thomas Seccombe, M.D., of a daughter.

TYLECOTE.—On the 8th inst., at Great Haywood, Staffordshire, the wife of E. T. Tylecote, M.D., of a daughter.

MARRIAGES.

BOOKLESS—SMEED.—On the 4th inst., at Tunstall, James Pitcairn Bookless, M.D., to Ellen Maria, daughter of George Smeed, Esq.

FREELAND—GILKISON.—On the 28th ult., at Glenhuntly, Port Glasgow, John Ellis Freeland, M.D., to Margaret, daughter of the late David Gilkison, Esq.

DEATHS.

BEAN.—On the 15th ult., at Torquay, Edward Fowler Bean, M.R.C.S.E., aged 69.

REID.—On the 18th Dec., at Terrara, New South Wales, James Stephen Reid, M.D.

BUCKBY.—On the 24th ult., at Sutton-on-Trent, Arthur G. H. Buckby, M.R.C.S.E., aged 50.

COLEMAN.—On the 10th ult., at Galway, James Joseph Coleman, L.R.C.P.Ed., aged 41.

DONNERSON.—On the 4th inst., at Crossmaglen, co. Armagh, Richard Donaldson, L.R.C.S.I.

EAGER.—On the 3rd inst., at Guildford, Richard Eager, M.R.C.S.E., aged 73.

ELLERY.—On the 26th ult., at Axminster, Devon, Henry James Ellery, M.D., aged 46.

FURLONGE.—On the 21st ult., at Kinsale, co. Cork, William Furlonge, M.D., aged 86.

JOHNSON.—On the 5th inst., Walter Johnson, M.R.C.S.E., of Colchester, aged 70.

LAWLOR.—On the 4th ult., at Queenstown, Jeremiah Lawlor, M.D., aged 39.

PETTINGER.—On the 27th ult., in his 74th year, George Pettinger, M.D., of the City of Manchester.

RUSHFORTH.—On the 29th ult., at Truro-road, Tottenham, Richard Rushforth, Surgeon, in practice prior to 1815, aged 77.

SMITH.—On the 21st ult., at Lofthus-in-Cleveland, James Broom Smith, M.D., M.C., and L.R.C.P.Ed., aged 35.

YARWOOD.—On the 9th ult., on board the steamship *Gallicia*, homeward-bound, Charles Yarwood, M.R.C.S.E., late of Aston, aged 47.

[N.B.—*A fee of 2s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

OUR RECRUITS AND RECRUITING SYSTEM.

THE Report of the Inspector-General of Recruiting for the past year has been published and presented to Parliament. It appears to us to be a very carefully prepared document, if not the most reassuring one, and some of the statements set forth in it are likely to be of interest in connexion with recent debates. The establishment of the regular army for the year 1875-6 was 178,423 men, exclusive of officers, being very nearly the same strength as for the previous year 1874-5. The number of recruits raised during the past year has shown a falling off to the amount of 2166, as compared with 1874. Great care, it is alleged, has been taken to ensure a proper description of recruits, as may be inferred from the fact that upwards of 8000 of those presented for enlistment were rejected as ineligible. The scheme for carrying out the principle of local organisation is annually becoming nearer completion, and by 1878 the system may receive a full and fair trial. It is suggested as probable that as this system becomes more perfect, the militia may be made one of the chief feeders of the regular army. The recruits who joined the army during the year, according to the reports of commanding officers and those of principal medical officers of garrisons throughout the kingdom, were of a fairly good type, and somewhat superior to those raised during the two previous years. It is calculated that, with a short-service system, it will be necessary in future to raise yearly from 27,000 to 28,000 men to keep the army, at its present establishment, complete in numbers. Assuming that voluntary enlistment must continue in force, it is clear that the inducements to enter the army must be increased to attract men physically and intellectually suitable. As to the enlistment of lads of eighteen, there is this to be said, that if you do not take them then, you will lose them altogether. Although the records of celebrated campaigns prove that young men have often rendered good service, it is pointed out that the changes in the constitution and organisation of Continental armies make it perilous for this country to rely to so great an extent as formerly on its undeveloped manhood. We are very glad to notice that what we have more than once advocated—viz., the extension of the practice of enlisting boys from several industrial, district, union, and other schools—meets with favourable consideration. It will be remembered that some years ago a good deal of abuse was leveled at army surgeons in consequence of the alleged practice of cross-cupping soldiers, and that everything approaching branding in character was forbidden. Since that time there has been an enormous increase in desertion and fraudulent enlistment, and it is curious to observe that there is now a disposition to have recourse to some process or other of marking all soldiers, officers and men alike.

L.R.C.P.—We cannot answer questions concerning dentistories.

STATE OF THE CAVITIES OF THE HEART AFTER DEATH.

To the Editor of THE LANCET.

SIR,—Having lately had an opportunity of looking over some numbers of THE LANCET, I met with a letter from Mr. Andrew Wilson in the number for June 5th, which recalled to my recollection a case in my own note-book. Mr. Wilson's letter refers to a case of Mr. Cullingworth's, in which death was caused by suffocation, and the cavities on the right side of the heart were found empty of blood.

In August, 1857, I attended a poor woman at Stourbridge, in Worcestershire, who, whilst getting better from a severe attack of cholerac diarrhœa, was killed by her husband. He was drunk at the time, but must have had some notion of what he was doing; for he was found lying on the bed beside his wife, apparently asleep, and firmly clutching her nose between the knuckles of two of his fingers. His wife was dead. The post-mortem examination showed an intensely congested state of the tongue, larynx, trachea, and lungs; but the right cavities of the heart were entirely empty. The man was found guilty of manslaughter at the Worcester Assizes, and was sentenced to a term of imprisonment. I recollect being puzzled by the empty state of the heart, and I sent an account of the case to Dr. Taylor, from whom I received a letter, which I cannot now find, but which I believe contained some suggestions to account for the empty state of the cavities. Mr. Wilson thinks that the evidence of the emptiness is not satisfactory unless the heart is opened *in situ*. I am sorry my notes do not state how the heart was examined in the case I have mentioned; but I believe it was done in the way Mr. Wilson recommends. I am quite sure that I have met with the same recommendation many years ago, but I cannot be certain where or when. If I might trust the impressions of my memory I should say it was from Ellis's Demonstrations, which at the book I used in my hospital days; but I have not now got it, so cannot verify or correct my impressions.

I have been some years out of practice, and do not wish to offer an opinion on a disputed point; but the apparent similarity of my case to the one given by Mr. Cullingworth seemed to me to make it worth mentioning. I only regret that I cannot make a positive statement as to the mode of opening the heart.

I am, Sir, yours obediently,

JOSEPH GILES, M.R.C.S.L., &c.

Westport, New Zealand, Nov. 26th, 1875.

PORTSEA ISLAND GUARDIANS AND THEIR MEDICAL OFFICERS.

WE have received another letter from *Dr. Williams*, who appears to be annoyed at the line we have taken; but we must be excused for declining to reopen the matter.

Mr. Saville.—It would be against our rules to do so.

A FINE POINT UNDER THE ADULTERATION ACT.

AT the last meeting of the Wandsworth District Board of Works a letter was read from the Home Secretary with reference to the question as to whether the sale of milk in the streets came under the operation of the Sale of Food and Drugs Act, and stating that he could not give an authoritative interpretation of Acts of Parliament; but having consulted the chief magistrates of the Police Courts of the metropolis on the case, he was of opinion that section 17 of the Act 38 and 39 Vict., cap. 63, applied when a vendor "exposes for sale" *anywhere* or *has on sale* by retail in any shop or stores, and recommended that the magistrate at Wandsworth be asked to state a case for the opinion of one of the High Courts of Justice; also forwarding a copy of a letter from the Local Government Board on the same subject, stating that if in the case referred to the milk was retailed at the corner of the street to all passers-by, it was exposed for sale, and such exposure might perhaps be held to bring the case within the statute; though if it was being delivered from house to house the case might be different; but that in the opinion of such Board the correctness of the magistrate's decision should be tested by the judgment of the High Court of Justice before any amendment of the existing law was proposed.

Delta.—The advertisement forwarded is highly objectionable.

DROPSIES.

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Watt, in his account of a case of ovarian dropsy, in which he tapped the patient sixty-three or sixty-four times, inquires on her behalf whether she might keep in permanently a tap without risk. As I many years ago had a case somewhat pertinent to the above query, I will venture to give it as briefly as possible.

My patient, John F——, was a stout-built man, about forty years of age, who after suffering great abdominal pain, referred at the time to some obscure tumour in the epigastric region, pressing on the inferior vena cava, became after a time ascitic, with œdema of the legs. For this, as a palliative, tapping was frequently resorted to. During my attendance, extending from January, 1863, to February, 1864, he was tapped over 200 times, and about three hogsheads in all drawn off. On one occasion, towards the termination of my attendance, the idea struck him that a short silver canula and tap might be inserted and kept permanently in. After considerable reluctance I consented, with the proviso that he should send for me immediately should any irritation or symptoms of inflammation arise. Accordingly the instrument was inserted, and for a day or two he drew off *ad libitum* serum, and to his great delight two or three pints at a time. Upon this he decided upon paying a visit to some of his friends at Shepton Mallet, some twenty miles distant from this city. He started in a two-wheeled trap, driving himself and wife over this very hilly and difficult road, and arrived safely without mishap. On the evening, however, of the day of his arrival he was seized with abdominal pain, and was obliged to call in Dr. Wybrants, the well-known coroner of that district. He, of course, advised the immediate removal of the tap. This the patient would not consent to; but on the following morning drove back to Bristol and sent for me. I at once removed the tap, and all the threatening symptoms subsided quickly. The result was sufficient to prevent our repeating the experiment; still it was not altogether unattractive.

I have somewhere, but mislaid, a copy of a paper kept by the patient of the date, number of tappings, and quantity of fluid removed each time. In default of this I have referred to my ledger, and glean therefrom the following particulars:—The first tapping commenced in January, 1862, and continued at longer or shorter intervals to the 21st of February, 1864. I find that in January, 1862, there were 2 tappings; February and March, no exact record; from March to 1st June, 26 tappings; from June to August 31st, 1862, 29 tappings; from September to November 30th, 1862, 35 tappings; December, 9 tappings; from January, 1863 to June, 1863, on an average 8 times per month; in July, 4 times; August, 6 times; September, 6 times; October, 6 times; November, 3 times; December, twice; January, 1864, twice; February, once; the quantity gradually decreasing. This does not give the sum total of 200 or more. I only produce it to show the gradual decline in frequency, and if I could find the original table it would show the diminished quantity as well.

The case terminated in complete recovery, as was attested in the following autumn by Dr. Wm. Budd, Dr. Robertson, and myself on his applying for a situation as an engineer to the Stapleton Poorhouse. To my knowledge he was perfectly strong and well in 1872, and I believe is still living. During the progress of the case he passed at one period a lot of semi-fibrous, fat-looking stuff per anum, which was compared at the time to a mass of carpenter's deal shavings, and which I thought might be some portion of a diseased pancreas.

Two points in the treatment materially contributed to the successful termination: one was the use of a fine trocar, and the other not allowing the distension to become too great. One can imagine the difficulty I had to find a virgin spot, and how often I had to plunge through old seams.

Yours truly,

Bristol, February, 1876. ROBERT W. ELLIS, M.R.C.S. Eng.

An Inquirer.—In those cases of cerebral hæmorrhage which are accompanied by pupils strongly and equally contracted, the diagnosis from opium-poisoning is often impossible. Usually, however, the obvious paralyses caused by cerebral hæmorrhage are sufficient to prevent error.

Dr. Wolfe.—It shall be published soon.

AN ELIGIBLE OPENING FOR A PUPIL.

THE following advertisement is taken from the *Whitby Gazette*:—

"MEDICAL PUPIL.—Dr. Sanderson (student of King's College, London and Westminster Hospital, Senior optime equal Wrangler, Priseman, &c.), L.S.A. London, L.F.P.S. Glasgow, L.M. first examination, R.C.S. England, 1862, &c., can offer the unusual advantages—good home, strict moral training, and ample practice to be conversant with disease and its treatment, and would prepare for Preliminary and Examinations of any of the Medical Boards, and foster any attempt at Higher Branches of Medical and Collateral Education, regardless of expense. Terms on application.—Loftus-in-Cleveland, Feb. 16th, 1876."

A "SELF"-MADE MARTYR.

SOME men are born to greatness, some have it forced upon them, while others, not being so favoured by Fate or Fortune, determine to achieve it. In the case of these last it not unfrequently turns out to be infinite littleness. Mr. B. A. Miener, the Chairman of the Keighley Board of Guardians, elects to carve his way to eminence by martyrdom. He is preparing to fill a niche in history as a "self"-made martyr. The impulse upon which he acts is one of pure selfishness. He will not have his children vaccinated. He claims the right to defy society, to flaunt his own prejudices in the face of his neighbours, and refuse to take a precaution enjoined by law and reason for the protection of the public against one of the most loathsome and hideous maladies by which it has ever been assailed. Mr. Miener has no belief in the efficacy of vaccination, or his mind has been scared by stories of diseases communicated by vaccine lymph, and he falls back upon what we have no doubt he considers the right of a Briton to be dogged, defiant, and obstinately obstructive, with no better excuse than the hacknied pretence of Bullism and unconquerable obtusity. Mr. Miener is familiar with this amiable phase of moral character. It is repeatedly offered to his notice on board-days at Keighley in the cases of refractory paupers, who have their own individual notions of the obligations they owe to society, and in regard to which they, too, fall back on their supposed "right" to emulate the traditional impracticability of John Bull, and with as much logic as is displayed by Mr. Miener. The chairman emulates the pauper, and resolves to break the law with equal stolidity and, we must be pardoned for saying, audacity. The position taken up by Mr. Miener is precisely that of a householder who should claim the right to keep a mad dog. The parallel is perfect, because there are probably as many sane persons who do not believe in hydrophobia as there are who do not believe in the enormous perils of infection with small-pox. Mr. Miener and those who think with him contend that if the general public are convinced that vaccination protects them, they need be under no apprehension of contracting small-pox from the children he refuses to have vaccinated. The reply is obvious. It is not claimed for vaccination that it ensures immunity from small-pox; but that, if the malady should be taken, it will be modified. If we possessed as good a preventive against hydrophobia as we have against small-pox, we should still wish it to be penal to keep mad dogs. Society claims the right to enforce precautions against disease on all its members. It is not competent for anyone, even though he be Chairman of a Board of Guardians, to set himself up in stern antagonism to the will of the majority. Mr. Miener is probably aware of this, and it is with a spirit of serene effrontery that he prepares for martyrdom. The enlightened gentleman is very likely getting his health into order for a sojourn in one of Her Majesty's gaols as a first-class misdemeanant. He will be notorious; he will be fêted by a few fanatics; his praises will be sung by a chorus of weak sympathisers with the silly craze of which he aspires to be the martyr prophet. But he will not drive back the tide of progress any more than the mythical Mrs. Partington could sweep away the Atlantic with a broom. He will be only Mr. Miener, the feeble obstructive, after all; even after it is forgotten that he was a self-made martyr, and once "Chairman of the Board of Guardians of Keighley."

Dr. Igster is thanked for his communication.

EXTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR IN THE AGED.

To the Editor of THE LANCET.

SIR,—The following case appears to me to be of sufficient interest to warrant its publication in your journal.

A man, aged eighty-one years, in walking along a floor, tripped slightly on the matting, and fell partially on his side and hip. I saw him a short time after, when he suffered from the following symptoms:—There was slight swelling of the hip, which was broader than its fellow, and the swelling extended more than half way down the thigh. The leg was an inch and a half shorter than the opposite one, and the heel rested against the internal malleolus of the opposite side; the foot was everted, and the whole limb powerless. Crepitus could be but very indistinctly felt, and any attempt at rotating the limb caused the patient intense suffering. I diagnosed the injury as fracture of the neck of the femur, probably extra-capsular. The treatment consisted in placing a pillow under the leg, and another rolled up and put under the knee. The patient suffered very great pain, especially if the foot or limb was moved. His appetite failed, and he gradually grew weaker, and he died of exhaustion about a fortnight after the injury.

A post-mortem examination revealed a double fracture of the great trochanter; the anterior fracture extended along the side of the anterior inter-trochanteric ridge, and the posterior extended from the apex of the trochanter downwards and backwards. The trochanter was thus split into three pieces. The neck of the femur presented no traces of injury.

This fracture is rather unusual in a man of eighty-one years. Mr. Erichsen and other authorities state that extra-capsular fracture is commonly met with at a comparatively early age, between thirty and forty years, and that intra-capsular fracture is the usual kind of lesion seen in the aged. The age of this patient was ascertained beyond doubt, and the result revealed by a post-mortem examination. There was no impaction in any way connected with this fracture.

Yours &c.,
February, 1876. J. G. THORNLEY, L.R.C.S. Ed.

Purity.—Good water will keep indefinitely if contamination be avoided; but London water, particularly that of the Kent Company, is much better than most country water.

Mr. R. W. Barney, (Dublin.)—An excellent account is given in Dr. Maclean's article in the second volume of Reynolds's System of Medicine.

RAILWAY DEMOLITION AND OVERCROWDING.

RAILWAYS not unfrequently do useful sanitary work by clearing away squalid and unhealthy neighbourhoods in the centres of towns; but it is doubtful whether this advantage is not more than counterbalanced by the temporary overcrowding which their operations directly cause. The Great Northern Railway is doing a large work of demolition in Derby, and serious overcrowding is being caused thereby. 250 houses will shortly be pulled down, probably displacing 1200 to 1500 people, who will have to settle themselves in other parts of the town. Such large displacements of population for railway purposes demand, in the interests of the public health, some legislative control, in order to secure the provision of other dwellings for inhabitants who are unhoused; otherwise dangerous overcrowding is inevitable.

Mr. Manby "in a British Colony."—It appears to us that our correspondent has no cause for complaint. The certificate was extremely vague and unsatisfactory. The Government officer simply performed his duty.

SURGEON-MAJOR PORTER ON "INTERMITTENT HÆMORRHAGE" FROM MALARIAL INFLUENCE.

To the Editor of THE LANCET.

SIR,—It is a matter of some regret that the above paper did not elicit more discussion at the last meeting of the Medico-Chirurgical Society, touching as it did on points of grave pathological importance.

Surgeon-Major Porter deserves sincere thanks for the details he so carefully recorded. From them it appears that the patient, a young soldier, was suffering from intermittent fever and rheumatism in India, was sent to a Himalayan sanitarium, but eventually had to be invalided home in an "anæmic" condition. Thus he came into the hospital at Netley. Whilst there the knee-joint showed signs of disease, and amputation of the thigh at the condyles had to be performed. For some days all went on favourably till secondary hæmorrhage supervened, accompanied by aguish paroxysms. The bleeding returned several times on subsequent days, till at last, after an exhibition of quinine, five grains three times a day, and the application of styptics, the hæmorrhage was arrested, and with incessant care and anxious supporting treatment the patient recovered.

There are several points here worthy of consideration, such as, Is there *sufficient* evidence to show that these repeated hæmorrhages were due to "malarial poison"? and if not, What pathological condition of the patient's system was the probable cause of the phenomena described?

Mr. Charles Macnamara at once remarked that during his long experience in Bengal he never met with a case similar to the above, and there is reason to believe that his statement coincides with the experience of other medical officers in India. The cause of the hæmorrhage, therefore, in the case under discussion should, as the speaker pointedly suggested, be sought for elsewhere.

There is no intention to discuss here the question, What is malaria? Bad air, whether it be a real entity, an outward poison, perhaps an agglomeration of living organisms like bacteria floating in the air, and thus "poisoning" the human frame by its action from *without*, or whether certain atmospheric conditions of heat, cold, moisture, and electricity, acting upon the constitution so as materially to impair the vital processes of assimilation and elimination, generate the poison *within*, and thus induce the phenomena of ague, which again may be nothing else but efforts at elimination? These are questions which have not as yet obtained a satisfactory solution. So much, however, we are justified in stating, as the result of experience, that in the tropical climate the vital processes of assimilation are apt to become seriously impaired; dyspepsia, mal-assimilation—in short, a slow but gradual starvation follows; and medical officers of Indian experience are able to corroborate the fact that in due course, even without any organic disease, the circulating fluids become impoverished, regular lukæmia is induced, and unless the system be reinvigorated by change to a better climate, the breaking up of the constitution is inevitable. This condition may with propriety be called tropical cachexia—a marasmus produced by the uncongenial "bad air," malaria, of the tropics.

In analysing Surgeon-Major Porter's case, we have here a patient, with debilitated constitution, becoming anæmic, he having resided for three and a half years in India, where he suffered from symptoms of mal-assimilation; later on, disease of the knee-joint declares itself, and amputation has to be performed. The operation is practised *through the condyles*, and a repeated and alarming secondary hæmorrhage ensues. What natural conclusion might one be led to, under these circumstances, but that this patient was the subject of "hæmorrhagic diathesis," and that the hæmorrhage was *probably* facilitated by the large surface of cancellous tissue exposed in the operation. The hæmorrhage was eventually controlled, and the patient quickly recovered, under a most assiduous and supporting treatment, as already mentioned.

It is not easy to understand on the "theory of malaria," as usually propounded, the process of a somewhat sudden recovery in this case—a recovery not only from the "intermittent hæmorrhage," but from the "malarious poison" itself, which, as we are told, is apt to lurk in the system for "fifty years and upwards"; whilst on the principle of hæmorrhagic diathesis, as evidenced by anæmia," the result of three and a half years' residence in the tropics, the reported phenomena seem to be less difficult to explain.

It might by some be looked upon as a retrograde step in pathology if plausible, but perhaps hardly tenable, inductions as to "malarial influences" were to be set up from solitary cases like the present, and theories affirmed the basis of which, notwithstanding the studious researches of men like Lattana and Ludwig, may at no distant period prove to be mistakes. It seems far safer to endeavour to reconcile perhaps such phenomena as this interesting case presented by the light of established pathological knowledge and facts, such as few would undertake to call in question.

I remain, Sir, yours &c.,
THEODORE DUKA, M.D., F.R.C.S.,
Montague-square, March, 1876. Surgeon-Major, Bengal Army.

M.B. Lond.—So far as we have heard, the only name as yet mentioned in connexion with the candidature for the Chair of Physiology at Glasgow University, when the announced retirement of Dr. G. Buchanan shall have been carried into effect, is that of Dr. J. G. M'Kendrick.

Mr. Rees should consult a physician.

CREMATION.

THE Hygiene Commission of Paris, in its report on Cremation, states that while the practice would offer many advantages, a great if not insuperable objection to it would be found in the impossibility, in the event of its adoption, of detecting certain crimes—thus rendering a necropsy imperative in all cases of death.

M.R.C.S. England, &c.—The practice is undoubtedly wrong; but there are no means of remedying the evil. He could not recover in a court of law for attendances on surgical cases.

THE ABSENCE OF THE CHLORIDES FROM THE URINE.

To the Editor of THE LANCET.

SIR,—One takes up THE LANCET week by week, and the result of its perusal gives a great amount of pleasure and profit; the former arising from seeing the friendly way in which criticism is given and taken, and from this profit is derived by reading the different experiences recorded in this or that method of diagnosing and treating disease. Bearing such feelings in mind, I would venture to draw the attention of your readers to the diagnostic value of the absence of the chlorides from the urine in pneumonia, as taught by the late Professor Hughes Bennett, of Edinburgh, and I am induced to do so at the present time from reading in your number of Feb. 5th an address on "Pleuritic Effusion" delivered at the Liverpool Infirmary by Dr. A. T. H. Waters, in which he says, "There is no single sign which invariably exists by which pleuritic effusion can in all cases be certainly diagnosed." Then he goes on to describe the case of B. in No. 10 ward; how that a fine canula was introduced into the chest more than once with a negative result, and how that death revealed the fact that pneumonia, and not pleuritic effusion, was the cause of the dulness &c.

Now, I do not dispute the correctness of the remark above quoted; but I do say, or rather the late Dr. Bennett said, and I have proved the fact over and over again, that there is one single sign by which we may diagnose pneumonia from other chest affections, and that is by the absence of the chlorides from the urine; so that given a doubtful case of lung affection where one feels uncertain as to its being a case of pneumonia or pleurisy with effusion, let the urine be tested, and if the chlorides are diminished or absent, you may with certainty put it down as a case of pneumonia; and not only so, but as the lung recovers itself, so in direct proportion will the chlorides reappear in the urine. If this be done, the risk of an exploratory puncture may be avoided. The following case is a fair example of this.

I was requested on Monday, April 5th, 1875, to visit J. S——, aged twenty-three years, a robust-looking man, by occupation a carman to a firm of brewers. He stated that he caught cold the previous Saturday, and had had rigors and severe pains in the right side and bladebone. I found him in bed, with an anxious look; hard, quick pulse; hurried breathing; a temperature of 103°; and with a troublesome, short cough; and he was expectorating a quantity of sanguineous mucus (in fact, I do not remember ever seeing so much blood got rid of with the sputum in any case before as happened here). The urine was tested, and the chlorides were found absent.

April 6th.—The dulness had extended from the lower half to the lower two-thirds of the right lung, and he had had diarrhœa; no chlorides.

7th.—Expectoration very profuse; dulness extended to the whole of the right lung; pulse hard and full; diarrhœa continuing; no chlorides. To take saline mixture with tartar emetic, whisky every four hours, and turpentine applied to the chest; beef-tea and milk *ad lib.*

8th.—Much the same; appetite bad; expectoration more frothy. To go on with the whisky, and to have half a pint of beer.

9th.—Condition of chest the same; seems very low. Ordered brandy every two hours, and to add carbonate of ammonia to the mixture. No chlorides. In the evening he was a shade better, and the expectoration was more frothy.

10th.—He was decidedly better, and there was a faint trace of chlorides.

11th.—The expectoration much better, and air is entering the upper part of the lung. He takes a quantity of nourishment, and the chlorides are returning in the urine.

The case from this time went on uninterruptedly well, and on the 27th he was well enough to come and see me at the surgery.

These few rough notes were taken by me at the time.

I remain, Sir, yours truly,

London, Feb. 8th, 1876. A. L. G.

Mr. William Soper, whose letter was accidentally overlooked, will find a full discussion of the subject in our last Report on Disinfectants (THE LANCET, July 25rd and Aug. 9th, 1873).

B. D.—There is not. See our recent review of Smee's "Milk in Health and Disease."

Dr. Bowman (Sunderland) is thanked.

EPSOM COLLEGE.

THE following letter has been forwarded to the Charity Voting Reform Association:—

Royal Medical Benevolent College, Epsom,
Office, 37, Soho-square, London, W.,
3rd March, 1876.

SIR,—Referring to the letter of the Charity Voting Reform Association of the 1st of August last, and my letter of the 9th September, I beg to inform you that it has been decided by the Council of this institution to discontinue the public day of election of Pensioners and Foundation scholars.

It will be required that all balloting-papers shall be delivered at this Office signed, and with figures indicating the candidate or candidates to be voted for, at least three days before the annual general meeting, at which the result of the election will be declared.

During this interval, appointed scrutineers will ascertain the number of votes given, and no balloting-paper will be issued or received.

No information will be given as to the state of the poll until it is officially announced at the annual general meeting.

I am, Sir, your very obedient servant,
ROBERT FREEMAN, Sec.

The Secretary, Charity Voting Reform Association,
30, Charing-cross.

T. points out that sulphur has been recommended as a dentifrice, and suggests that it may contain sulphurous acid, and so cause injury to the enamel. It is true that flowers of sulphur contain sulphurous acid, which easily oxidises to sulphuric acid, and this kind of sulphur is therefore objectionable. Even powder manufacturers always use ground sulphur in preference to flowers, because the sulphuric acid of the latter would absorb moisture from the air. Ground sulphur is sometimes used in polishing, and it is therefore possible that it may be a good dentifrice.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—The new Warrant will be eagerly scanned by the department, and also by those for whose consideration it will be promulgated. At first glance the terms are fair: £250 per annum, with £18 for servant, and £40 for lodging allowance. Will this latter sum be always given, or is one room in barracks supposed to be the equivalent? It is to be hoped that the new Warrant will settle definitely the question of lodging allowances, which should not be left to the caprice of the commissariat department. Being transferred to the staff by the Warrant of 1873, medical officers are entitled to staff quarters; if these are not available, lodging allowance, as a matter of course, should be given.

It will be rather amusing to see how the War Office treat the short-service officers, who will be rather astonished if they find that they are considered as regimental officers, and have the *privilege* of subscribing to mess and band funds, although they may be doing duty with a detachment perhaps a hundred miles away from head-quarters.

The terms will probably be seductive enough to induce a sufficient number of candidates to enter, and that is all the authorities require. The best men will not come forward, simply because when they commence life they hope that in ten years they will be then firmly established in private practice. A man at thirty-two years of age, even with £1000 at his command, is not likely to succeed in civil life if his health be impaired by tropical service. The element of non-success in the present scheme is that it does not offer a life career to the majority of those about to enter on it.

How are the present members of the department affected? Within three years two most radical changes have taken place, and in both cases medical officers have suffered, and they will suffer again unless promotion at twelve years' service be granted, and the restriction regarding sick leave be withdrawn. A few months hence the anomaly of two sets of officers in one department will be seen, which should not be the culminating point of

March, 1876. UNIFICATION.

To the Editor of THE LANCET.

SIR,—I think your correspondent, "V. W. V.," has done well in pointing out that it is not increased pay which the department want. The pay may not be great, but it is at least all that was promised when we joined the service. The grievance is the wholesale deprivation of privileges once enjoyed in the service, the greater number of which were laid down in actual Warrants, and the petty distinctions drawn between us and other officers. Quite recently I heard of a case where a medical officer belonging to a mounted corps, not merely "attached," was refused the services of a groom for his horse, while, it seems hardly credible, the veterinary surgeon of the corps had his soldier groom. I have no doubt that, as usual, some ingenious explanation can be given by the War Office for the different manner in which the two departments are treated; but it is small satisfaction for the medical officer, who is thereby virtually deprived of his horse, and finds himself in an inferior position to the veterinary surgeon serving with him. In fact, there is no longer any *esprit de corps* left. The seniors of the department, who have, or ought to have, power, remain quite neutral between the War Office and executive medical officers, who do the work of the department throughout the army. All idea of concerted action has been abandoned long ago. It can be no wonder that young men do not enter, when it is well known that but for the sacrifice of the pension large numbers in the department would at present resign their commissions.

Yours obediently,

March, 1876. A. M. D.

To the Editor of THE LANCET.

SIR,—In a late number you state that the Government do not intend appointing any volunteer medical officers until some New Regulations are published. In the militia there are at present eighty-six vacancies in the medical appointments, and these are not to be filled up. The army medical department is, I believe, much below its proper strength. The New Regulations have been so long on the stocks that I doubt if they will ever be published. In the meantime the diminished numbers of the army medical department must perform all necessary duties.

In a sketch of the medical requirements of the new mobilisation scheme, lately published, it is stated that each militia regiment should join with two medical officers at least. In practice a regiment will have to make the best of the third or fourth part of an army surgeon. Such an increase in their duties will hardly make army surgeons more contented.

Your obedient servant,

March, 1876. A SURGEON.

Mr. Albert Lloyd.—Our correspondent cannot claim more than a guinea. The solicitor is not responsible for it. We believe the client might be sued with success.

"DOES CHLORAL CAUSE INSANITY?"

To the Editor of THE LANCET.

SIR,—I beg to inform "Inquirer" that I did not state "that an overdose of chloral had frequently made persons insane." I stated to the coroner that the use of chloral in large quantities might produce insanity; but I was careful to explain that I did not mean single doses or the ordinary medicinal use of chloral. I was fully justified in making this statement, as the earliest and most intimate friend of my student days, who, had he lived, would have been one of the ornaments of our profession, died of acute mania, brought on by excessive use of hydrate of chloral.

I am, Sir, yours obediently,

THOS. BOND,
Assistant-Surgeon to Westminster Hospital.

Parliament-street, March 6th, 1876.

W. G. D.—We are not acquainted with any work answering the purpose better than Mr. Matthew Arnold's. A line to Messrs. Williams and Norgate, Henrietta-street, Covent-garden, would at once clear up the matter. Not very long since we answered queries from correspondents respecting medical education in Paris, and entered into full details. It would be a great boon for intending students in Paris if a regular guide were published. The fear, very probably, of not selling a sufficient number of copies is in the way.

SIAMESE OBSTETRICS.

DR. W. L. HUTCHINSON, Bangkok, Siam, writes as follows to the *New York Medical Record*:—

"I forward you the following description of practice in this country from my own observation. When a woman is about to be confined, several female friends are called in as attendants, also the old 'yi' or midwife. Another name they have for her is 'moh-raksah-cran.' The only means they have for aiding the woman in labour are manipulations and pressure. They place the patient on her back; then a woman is seated on each side; these two women begin by forcibly pressing the abdomen down and backward. This proceeding is continued from three to five hours; then, if having failed to expel the fœtus, one of the attendants is supported by the hand while she tramps the abdomen of the patient; always placing her feet above the fœtus. Then, as a *dernier ressort*, all other means having failed, they suspend the parturient by means of a band beneath the arms. One, and sometimes two, of the attendants will then clasp with their arms the body of the patient, and suspend themselves also. This last expedient seldom fails to produce a rupture in some direction—it may be the uterus, perineum, or encephalon of the child. I am certain many children die from harsh treatment during parturition. I have seen even adults with cysts of large size attached to a point corresponding with the anterior fontanelle of infancy, and heads of the still-born dreadfully lacerated."

Country Practitioner.—In certain conditions of degeneration of the spinal cord the central canal is enlarged, and contains fluid. It is more than doubtful whether the condition can be diagnosed during life. The only symptoms are those due to the degeneration of the cord, which are much more frequently associated with occlusion than distension of the canal. No physician would be justified in assuring a patient that he was suffering from "hydrosis of the central cavity of the spinal cord."

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fothergill, London; Mr. W. Rivington, London; Prof. Cleland, Galway; Dr. Lyon Playfair, London; Mr. Bond, London; Dr. Bastian, London; Mr. Neild, Birkenhead; Mr. Crawley, Oakham; Mr. Marshall, Dover; Mr. Cooper, London; Mr. Clay, Poole; Mr. Lee, Muswell-hill; Dr. Saundby, London; Dr. Taylor, Scarborough; Dr. Bolton; Mr. Jackson, London; Mr. James, Netley; Dr. Wilson, London; Messrs. Cassell, Petter, and Galpin, London; Dr. Fletts, Ryde; Mr. Pritchard, London; Mr. Grant, Birmingham; Mr. T. J. Hogg, London; Dr. Griffin, Southampton; Mr. McNab, Stirling; Dr. Rounsell, Torquay; Surgeon-Major Moffit, Poona; Mr. Thring, Uppingham; Dr. Thornley, Leicester; Mr. Lyster, Liverpool; Mr. Taylor, Cannock; Dr. Wigleworth, Liverpool; Mr. Purvis, Greenwich; Mr. Elsom, London; Dr. Charteris, Glasgow; Mr. Saville, Cressage; Mr. Foster, Dover; Dr. Pattinson, Seaton; Mr. Turner, London; Mr. W. J. Clarke, London; Dr. Plomley, Maidstone; Mr. Rees, West Clifton; Dr. Wolfe, Glasgow; Mr. J. Wynne, Truro; Mr. Lloyd, London; Mr. Condy, London; Mr. Sherlock, London; Dr. Gooding, Blackheath; Mr. C. Hepworth, London; Mr. Groves, London; Mr. Atkinson, Leeds; Dr. Mackintosh, Southsea; Mr. H. Smith, London; Dr. Williams, Southsea; Dr. Haward, London; Dr. Drysdale, London; Mr. Teevan, London; Mrs. Robinson, London; Dr. Higgins, Mickleover; Mr. Barney, Dublin; Dr. Cameron, Huddersfield; Dr. Bucknill, Rugby; Dr. Thomson, Torquay; Dr. Bowman, Sunderland; Dr. Kebbell, Brighton; Mr. Parks, London; Mr. Walkley, Leeds; Mr. Craddock, Shepton Mallet; Dr. Paul, Calne; Mr. Ellis, Manchester; Dr. Ogston, Aberdeen; Mr. Rayne, Pendlebury; Dr. Braden, Lewes; Dr. Saunders, Exminster; Beta; C. F. L., Henfield; Delta; L.A.C.; L.R.C.P.; M.R.C.S. Eng.; The Registrar of the King and Queen's College of Physicians, Ireland; M.D. L.; Alpha, Leamington; Medicus, Dundee; W. G. D.; Country Practitioner; Medicus, West Bromwich; B. A. C. R.; The Dean of the London School of Medicine for Women; S. E. P.; S. H.; Radix; Registrar-General of Edinburgh; J. R., Kilmarnock; A Surgeon to a Medical Aid Association; An Old Subscriber; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Skelton, Colney Hatch; Mr. Walker, Sheffield; Mr. Weekes, Chatham; Mr. Ellery, Axminster; Dr. Dickson, Beeford; Dr. Hardwicke, Sheffield; Mr. Edwards, Furneaux Pelham; Mr. Craig, Tunsbury; Mr. Braorton, Wincanton; Dr. Roberts, Ruabon; Messrs. Harthill, Willenhall; Dr. Fyffe, Bristol; Mr. Southwood, Fakenham; Dr. Tylecote, Stafford; Mr. Gurner, London; Dr. Warwick, Richmond; Mr. Hill, Bodenham; Messrs. Hartill, Willenhall; Edinburgh; Enquirens; Junius; Delta, Liverpool; G. A., Newcastle-on-Tyne; Medicus, Elvington; M.D., Brighton; E. C., Camden-town; Dispenser, Gosport; Medicus, Dudley; T. J. H.; S. P.; Medicus; H. T. J.; X. X.; M.R.C.S., Morley; A. B., Leicester; Medicus, Edinburgh; C. W.; Medicus, Manchester; O. P. Q.; Medicus, Aberdeen; J. J. H.; Medicus, Dudley.

Lincoln Gazette, Newcastle Chronicle, Western Morning News, Liverpool Post, Welshman, Cork Constitution, Manchester Guardian, Birmingham News, Isle of Man Times, Keene's Bath Journal, Essex Weekly News, Freeman's Journal, Sheffield Daily Telegraph, and *Hastings and St. Leonard's News* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, MARCH 9TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radiation in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall	Remarks at 8 A.M.
Mar. 3	29·75	W.	50	52	...	57	44	0·00	Overcast
„ 4	29·74	W.	43	46	...	53	43	...	Bright
„ 5	29·80	S.W.	43	44	...	53	37	...	Raining
„ 6	29·61	W.	49	53	...	57	43	0·10	Overcast
„ 7	29·74	N.W.	36	42	...	49	38	...	Bright
„ 8	29·75	W.	44	46	...	53	38	0·04	Overcast
„ 9	28·91	W S W	36	45	...	...	36	...	Bright

Medical Diary for the ensuing Week.

Monday, March 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. K. Parker, "On the Shoulder-girdle and Fore-limb of Vertebrata."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. William Adams will deliver his Presidential Address. — Mr. Walter Coulson, "On Lithotomy and Lithotrity."

Tuesday, March 14.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Douglas Powell, "On some Effects of Lung Elasticity in Health and Disease."

Wednesday, March 15.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. K. Parker, "On the Shoulder-girdle and Fore-limb of Vertebrata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—8 P.M. Dr. A. B. Shepherd, "On the Natural History of Pulmonary Consumption."

Thursday, March 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HARVEIAN SOCIETY.—8 P.M. Dr. Milner Fothergill, "On Neuroual Affections of the Heart."

Friday, March 17.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. K. Parker, "On the Shoulder-girdle and Fore-limb of Vertebrata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. A. B. Shepherd, "On the Natural History of Pulmonary Consumption."
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. W. B. Woodman: "Hints on the Systematic Study of Histology."

Saturday, March 18.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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